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Review

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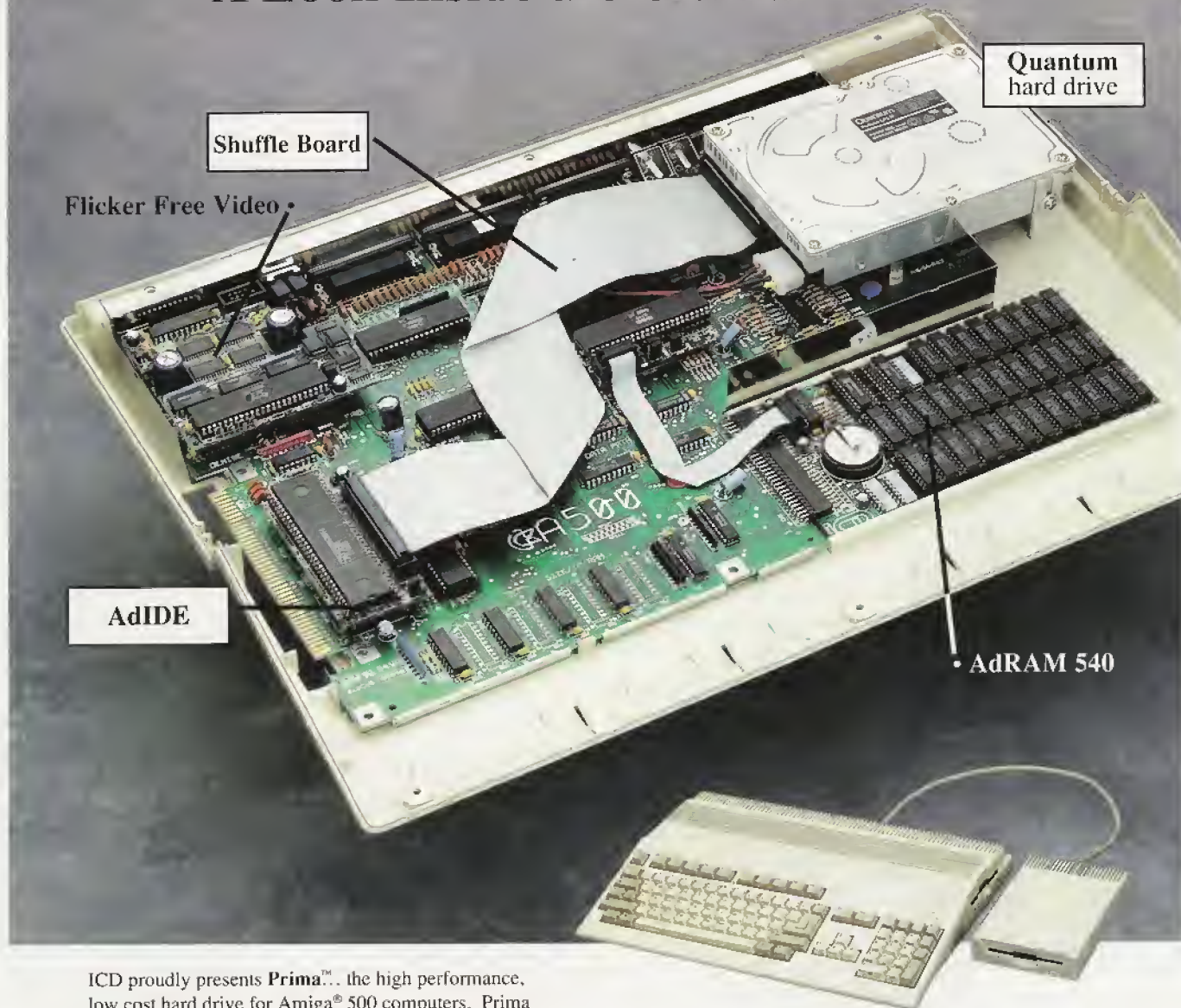
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Editorial

I have just picked up two brand new 130 megabyte one inch SCSI hard drives from an auction for \$275 each. Combined with a AD-SCSI controller card at around \$299, I now have 260Mb of very fast storage at under \$1000. Who said there weren't any bargains to be had these days?

Well, the holiday season certainly saw plenty of discounting and there were indeed some bargains to be had in the way of hardware. January is traditionally the time when the best deals on software are to be enjoyed as companies like Computer Spot hold their annual clearance sales.

No doubt there are plenty of new Amiga owners having picked up the \$499 trade up offer, disposing of their old C64, Atari, Sega or Nintendo. It's great to see Commodore's pricing move back into their traditional low end home market. Now all we need is a machine which sounds like an IBM compatible in specification, but offers all those wonderful Amiga features.

In this issue we look at one step in the right direction, the Amiga 500 Plus, complete with all the latest new chips. In fact, rumours are running hot of an even newer Amiga with a chip set that will place it fairly and squarely in line with similarly priced PC's.

Your average IBM compatible has VGA, a graphics resolution which boasts 640 x 480 in 256 colours - without any flicker. Now although there are many Amiga owners that would never need such a display, there can be no disputing there is an equally large number who would.

I believe Commodore need a machine priced around \$2000 which offers a VGA equivalent display, a matching monitor and at least a 40Mb hard drive. In April we may well see such a machine. Already news about the new Amiga CPUs with the AA Chipset is running hot around the electronic message systems of the world. Late this year we might just see a top end machine with specifications that include an 8-bit, 4 Megabyte Agnus Chip offering 256 colours from 16.7 Million in Hi-Res, 256,000 colours from 16.7 Million HAM mode in Hi-Res and the 16-bit AT&T sound chip set, built in 9600 Baud Fax/Modem and more. There's also talk of an ARCNET style built in proprietary network and MPEG Compression. Expect to see 68030's as standard and most components being surface mounted.

Remember, this is all just rumours - hardly anything to base a decision on. However, even just a whisper of an improved Amiga gives us all that warm fuzzy feeling that we are with a computer that is moving with the times. There are those that say manufacturers despise these pre-release rumours and although that is understandable, people love to hear about new, faster, sleeker machines which out-perform the existing models. We're sure you want to know about anything new the moment we hear about it - so we'll keep doing our darndest to keep you informed.



Andrew Farrell

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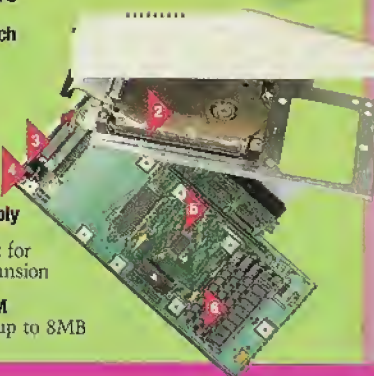
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UPDATE

Have we got some news for you!!!

WORLD SERIES CRICKET comes to your Amiga this summer. The full one day World Cup tournament, with all the teams, all the rules, all the coloured uniforms, all the razzamatazz of the real thing, and all proudly written, directed and produced right here in Australia.

WORLD SERIES CRICKET is fast and action packed, with full control over the bowling (in fact there are over 430 different bowls) and the batting, changeable fielding positions, batting order, bowling order, the works. Screen display features overhead perspective and absolutely amazing split-screen simultaneous scrolling, animated displays for batsmen, bowler, umpire and fielders.

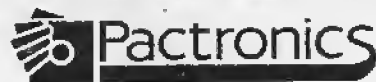
Main features of WORLD SERIES CRICKET include; One or two player mode, variable number of overs (from 1 to 99 overs), on screen umpire, wides, leg byes, run outs, full control over the number of runs taken per shot, "human" attributes for both bowler and batsman (strength etc.), teams editor / teams creator, scoreboard, load / save games in progress and so many more features!!!

Pacronics are "over the moon" to have had a hand in this game, and will be exporting this brilliant Australian product world wide.

The other great bit of news for summer is the release of THE BLUES BROTHERS. Jake and Elroy are on a mission in your Amiga. This is one of the best ladders and platforms-type arcade game we've ever seen. Great colour and soundtrack (the full theme from the Blues Brothers movie) and brilliant game play.

Keep an eye out for the latest releases from Pacronics, it's going to be a long hot summer!!

Pacronics Pty Ltd, 98 Carnarvon St, Silverwater, NSW (02) 748 4700



Ram Rumbles

Adelaide Entertainment Expo

Some of the world's latest electronic gadgetry and sound and audio visual equipment will go on show in Adelaide next July when it hosts The News Home Entertainment Expo. The event, the biggest of its kind ever staged in the State, will be held at the Adelaide Hilton from 24 - 26 July, 1992 and will feature home theatre and television, hifi, photographic and video equipment, musical instruments, personal computers, electronic games, CD's, records and cassettes, and communication systems.

The venue will also allow demonstrations in sound-proofed rooms so that people can hear some of the extraordinarily high quality sound that is now available for home entertainment systems as well as demonstrate the musical instruments.

For further information contact Mr. Geoff Millard, Exhibitions and Trade Fairs Pty. Ltd., telephone (08) 362 9966, fax (08) 362 9966.

Compuserve Not Liable

A recent court case in the US found CompuServe Inc. cannot be held liable for defamatory statements contained in an electronic newsletter available on its system, according to a federal judge in New York.

Writing for the Reuter Business Report, Gail Appleson reports US District Judge Peter Leisure ruled late Tuesday that computerized databases are equivalent to news vendors or bookstores and cannot be held liable for information unless they know beforehand that it is false.

The judge dismissed a suit filed against CompuServe by Cubby Inc. and Robert Blanchard who developed a computer database called "Skuttlebut" that distributes electronic news and gossip in the television news and radio industries.

In dismissing the suit, Judge Leisure agreed with CompuServe's argument in court that it is a distributor, not a publisher, and could not be held liable because it did not know about the statements. It may be interesting to see how this decision impacts on the kind of information we see on electronic message systems locally.

Amiga Vs PC

Following our comments in the November '91 editorial regarding the problem Amiga faces competing with IBM PC's, we have had a flood of letters. I hope to pass on some of your comments to Commodore, so please keep the letters coming in if you have any thoughts on the matter. Interestingly, many replies were from professional people who used other computers during the day.

Thank you to those who have commented so far.

Muswellbrook Commodore Computer Club

Boasting some 60 members, the Muswellbrook Commodore Computer Club informs us they are still looking after C64ers as well as the Amiga. The club also has a monthly newsletter, PD library and meets at the Upper Hunter Citizens and Police Youth Centre, Carl Street, Muswellbrook on the second Saturday of each month at 7.30pm. So, regardless of your experience, come along if you would like to meet other users. For more information call Gary Simpson on (065) 425 560.

Other user groups are welcome to keep us up to date with their regular events so we can keep new Amiga users informed of clubs in their local area.

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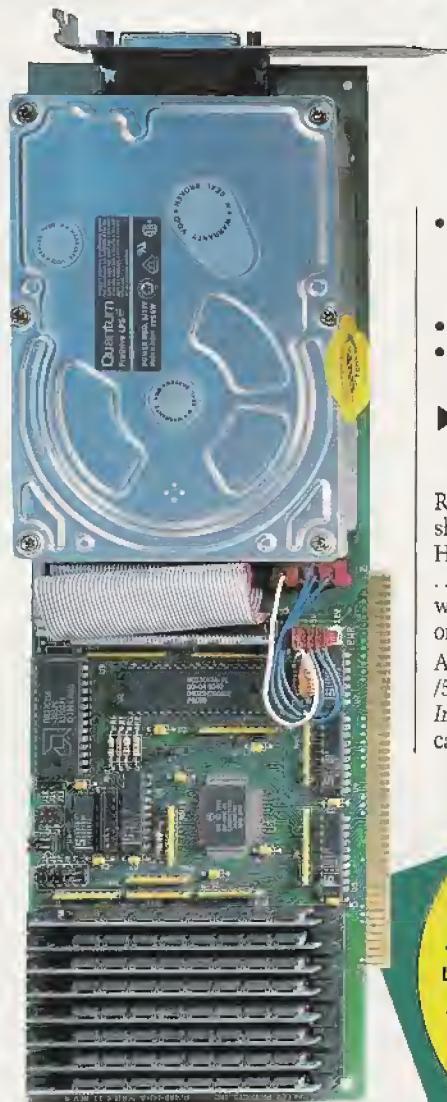
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Mediagenic Files Chapter 11

Mediagenic Corp., formerly known as Activision and InfoCom, has filed a petition for reorganization under Chapter 11 of the Bankruptcy Code. The European and Japanese subsidiaries of Mediagenic are not included in the filing.

Mediagenic says that it has new products slated for introduction in time for the Christmas season and for early next year.

Amiga at Work

* In the Netherlands, more than a third of the country's 1,700 pharmacies which buy through OPG, the nation's largest pharmaceutical distributor, use Commodore slimline and desktop PC's to communicate with OPG's mainframe.

* In France, the PC line is helping to meet the computing needs of such corporations as Matra and Credit National.

* In Germany, DAG, the nation's largest union, and Deutsche Bundesbahn, the German Railway, continued to increase their installed base of Commodore PC's.

* The Amiga 500 was named the

"Home Computer of the Year" for the third consecutive year by European journalists in the leading German computer publication "Chip".

* TaylorMade Films in Melbourne have been busy with the Amiga. John Taylor makes traditional animations but has gone Amiga for a safety video commissioned for the Victorian Fire Brigade, due to the influence of the Swinburne Film and Television School, where he graduated. There, David Atkinson has devised a program for the Amiga called "Shoot" which greatly simplifies the task of traditional cel animation. This program is being licensed to commercial production houses here and overseas.

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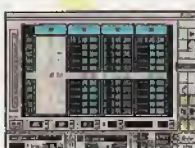
DSS Stretches the outer limits of 8-bit sound

- Create your own 4-track, self-playing musical compositions.
- Make soundtracks for home video, animation or visual presentations complete with voice-over, sound effects and music.
- Analyze voice patterns and stereo separation.
- Analyze graphic equalization of real-time sound.
- Remove "pops" from old phonograph recordings.
- Create custom instruments and sound effects by collecting and/or modifying pre-recorded instruments, voice, or sounds from any source, and use them in your own compositions.
- Save your sound and music to disk or send it out via modem for replay on any Amiga.

Check out these unparalleled features

- ✓ AmigaDOS 2.0 compatible; written in assembly language.
- ✓ Multi-tasking operation.
- ✓ 68020 and 68030 compatible.
- ✓ Comprehensive tutorial manual helps even beginners get started right away.
- ✓ Intuition-based graphic interface makes operation easy.
- ✓ MIDI-in capability.
- ✓ Direct interface between sequencer and editor.
- ✓ Hold 32 sound samples in memory at once — all shown on screen so they are easy to manipulate.
- ✓ Effects and processing capabilities include echo, mix, filter, re-sample, sound data inversion, playing sounds backwards, loops, fade-in/fade-out and more.
- ✓ Manipulate sound samples in real time, as you listen.
- ✓ Create sampled instruments with 1, 3 and 8 octaves.
- ✓ HI-FI recording for highest quality playback.
- ✓ Controls for faster/slower playback and filtering high frequencies during playback.
- ✓ Load and save samples, songs and instruments in multiple formats.
- ✓ Multiple effects for each note.
- ✓ Stereo and monophonic operation. Also convert mono to stereo or separate stereo.
- ✓ Auto-playing music modules.

- ✓ Real-time oscilloscope and spectrum analysis.
- ✓ Real-time reverberation.
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NotePad NotePad NotePad

The Listening Post II

Shortwave radio fans will be glad to know the Listening Post II project is now available for the Amiga. This nifty device is a decoder which connects between a shortwave receiver and a computer to decode facsimile, radioteletype and Morse code onto the computer's screen. Decoded transmissions can be saved to disk and printed on an Epson compatible printer.

The hardware part of Listening Post II is a small circuit board that the user builds from a kit. It plugs into the computer's parallel printer port and uses it as an input. Another connection goes to the earphone or speaker socket on the receiver. The interface is identical with the IBM-PC version.

Listening Post II was originally described as a magazine project for the IBM-PC, and during 1991 more than 500 kits were sold throughout Australia and New Zealand and as far away as Sweden. As well around 100 letters came in saying "when are you going to do a version for the Amiga?"

Over the past few months Listening Post II designer Tom Moffat has spent countless hours deep within the works of Exec and Intuition, and the result is a suite of small Amiga programs written in pure 68000 machine language. Each program provides one function - including FAX, MORSE, RTTY, SHOW and PRINTFAX. All functions are started simply by invoking their names, exactly as with their IBM-PC counterparts.

Amiga fax pictures are presented as black images on a 640x400 hi-res interlace screen. Pictures can be flipped upside down or changed to negative before being saved to disk. The Morse and Radioteletype programs work within

their own windows in the computer's default text font and colours.

The Amiga Listening Post II kit is priced at \$66.00 plus \$7.00 packing and postage for a total of \$73.00 (Aust), posted anywhere in Australia or New Zealand. The kit includes the parts to build the circuit board and a 3.5 inch disk with the Amiga software, full instructions, and some reception samples. Available only by mail order from High-Tech Tasmania, 39 Pillinger Drive, Fern Tree, Tasmania 7054. A money order or cheque must be included with the order.

Amiga in Labotomy Breakthrough

The amazing KCS Power PC Board Amiga/IBM emulator is now available through Kaotic Concepts Pty. Ltd. The Power Board features MSDOS 4.01 and manual, GWBASIC, Shell and manual and KCS's own comprehensive manual. It has video support for MGA, Hercules, and 16 colour CGA. Using the NEC V30 CPU, the Power Board offers the highest possible level of software compatibility - and because it makes use of the Amiga's own hardware, screen updates are incredibly fast.

The Power Board simply plugs into the A500 trapdoor slot and is ready to go in seconds with 704K plus extended memory and clock. In Amiga mode, the Power Board acts as a 512K expansion with clock, and a 512K RAM disk. Amiga 2000 and A3000 versions will be released shortly, and EGA/VGA support is imminent. It offers the ideal expansion for Amiga users who need to run MSDOS software, and its internal fitting frees valuable desk space.

RRP: \$550.00 (Aust). For more in-

formation contact Kaotic Concepts Pty. Ltd. GPO Box 2150 T, Melbourne 3001, telephone (03) 879 7098 fax (03) 819 5531.

SuperJAM!

Blue Ribbon has enhanced the name of their new music package originally called JAM! Unlike ordinary MIDI sequencers and music programs *SuperJAM!* requires little musical finesse in order to accomplish exciting results. Instead, *SuperJAM!* can create everything from rhythmic patterns to chord progressions and accompaniments at the touch of a button.

Using *SuperJAM!*'s new TurboSound Technology (tm), which allows the Amiga computer to play more than four sampled sounds at a time, anyone can create full-fledged accompaniments using nothing but his or her computer. Developed exclusively for The Blue Ribbon SoundWorks, TurboSound Technology mixes samples "on the fly", allowing for an advanced multi-timbral effect. This real-time translation of multiple samples provides the aural density necessary for complex musical composition.

So that people may use pre-existing IFF samples, *SuperJAM!* includes a special TurboSound editor. This editor allows the users to shape, redesign, loop, modulate and filter IFF samples for use with *SuperJAM!* Although the TurboSound editor is but one part of *SuperJAM!*, its features rival that of stand-alone sample editing programs.

SuperJAM!'s unique ability to automatically write music in an unlimited amount of styles, such as rock, samba, swing, funk, provides an exciting opportunity for three types of Amiga users:

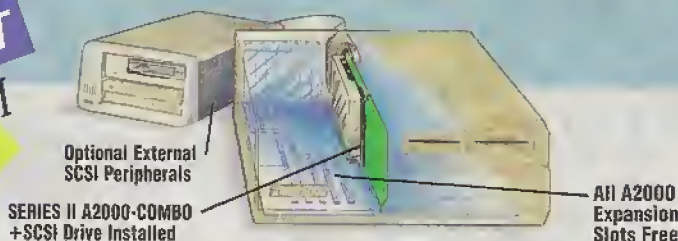
1) Multi-media artists can use *SuperJAM!* to create and synchronize musical soundtracks with other Amiga packages, such as Gold Disk's *ShowMaker*, Impulse's *Imagine*, GVP's *Scala*, and Octree's *Caligari*.

2) Non-musicians can invent truly musical arrangements on their Amigas using *JAM!*'s new TurboSound Technology, which gives the Amiga's internal sounds a greatly enhanced capacity.

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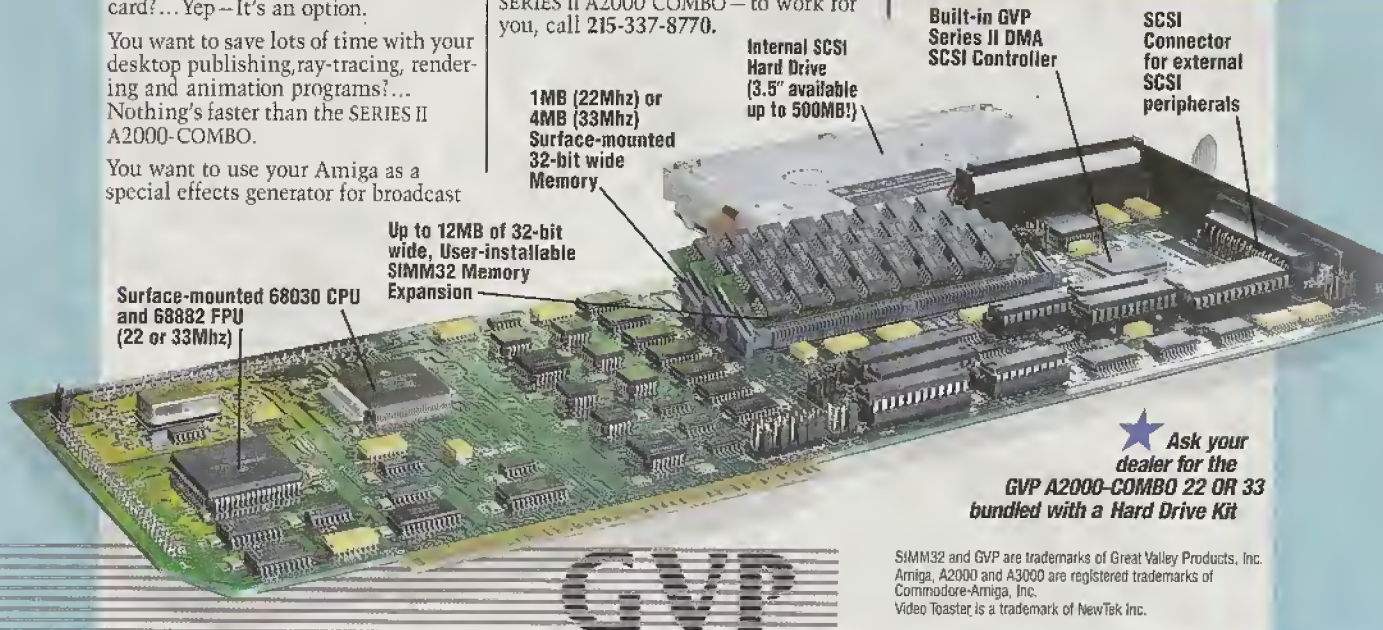
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3) *Bars&Pipes Professional* owners and MIDI musicians can use *JAM!* to "sketch" their musical ideas and try out various musical styles.

JAM! can be run seamlessly within *Bars&Pipes Professional*, too, so that both *SuperJAM!* windows and *Bars&Pipes Professional* windows can be viewed simultaneously.

SuperJAM! will be available in early 1992. For more information call Dataflow on (02) 331 6153. RRP not yet announced.

ADPRO 2.0 Includes JPEG

ASDG has announced version 2.0 of its award winning *Art Department Professional*. JPEG compression, 24 bit-plane printing through Preferences, support of new display boards, better colour technology and faster performance are included in the new release which is said to contain a number of firsts for the Amiga.

For example, *ADPro 2* offers the first Amiga implementation of the JPEG image compression technology which dramatically decreases the space consumed by 24 bit-plane images. JPEG support makes it possible to store large numbers of high resolution images in true colour by compressing such images to as little as 1/80 of their original size.

Also a first, is the ability to use any printer supported by the Amiga operating system to create colour prints with 24 bit-plane accuracy or gray scale prints with 8 bit-plane accuracy. Previously, Amiga owners were limited to colour

prints with 12 bit-planes of accuracy and gray scale prints accurate to only 4 bit-planes. *ADPro's* new printer support allows 24 bit-plane colour posters to be made with no size limitation imposed by the software. Now, even the most inexpensive colour printer becomes a high resolution proofing device.

The new release also adds a number of new file formats (including MicroSoft *Windows* BMP files), display boards (Digital Creation's DCTV, GVP's IV24, the ACS Harlequin, and others), operators (including a WYSIWYG anti-aliased text operator which utilizes the scaleable font technology in Kickstart 2.0).

ADPro's colour technology, already considered to be among the best on any computer, has been significantly enhanced to include greater precision and higher speed. The new release even supports 8 bit-plane HAM to make full use of BBS's HAM-E and other similarly capable display systems.

Other new features include a Universal loader which automatically detects and decodes most file formats, more WYSIWYG operators, and user interface enhancements which make use of Kickstart 2.0 if present.

ADPro has become the standard tool for format conversion and image processing. Being particularly indispensable for large projects, *ADPro* was recently recognized by Commodore Business Machines for its contribution to the development of CDTV.

The new release of *ADPro* will be around AU\$400. ASDG is mailing upgrade notices to its installed base of existing *ADPro* owners offering the new

release for US\$90.00 including shipping. Users who purchased (or upgraded to) *ADPro* on or after September 1st, 1991 can upgrade to version 2 for US\$45.00. For more information call Desktop Utilities on (06) 239 6658 or Fax (06) 239 6619.

Vortex ATonce-Plus

We should soon see a new ATonce 16MHz CMOS 80286-16 bit CPU for the Amiga 500 and the new Amiga 500 Plus. Amiga 2000 can look forward to a 80386SX AT-emulator with 16 MHz, Vortex FAST-RAM and a socket for an optional co-processor. Both will be available early this year.

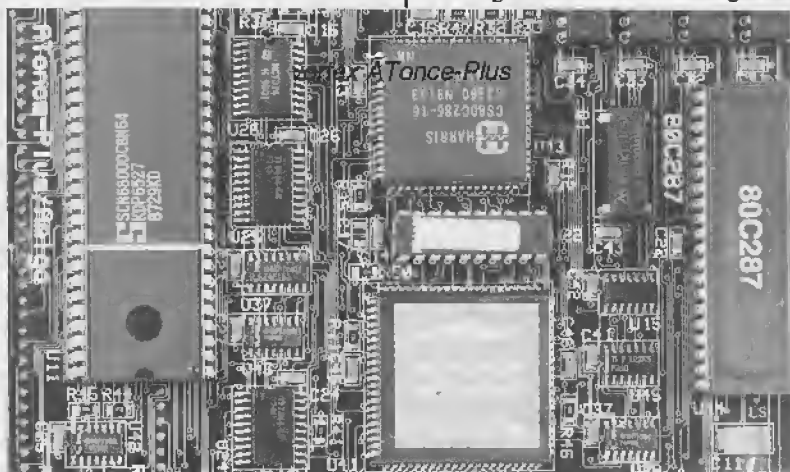
The new Vortex ATonce-Plus which is supposed to be for the Amiga 500 and Amiga 500 Plus features a low power 16bit CMOS 80286-16 MHz CPU running with full 16MHz clock frequency, 512 KB Vortex FAST-RAM, a socket for an optional 80C287-12 arithmetic co-processor. The unit has a Norton SI rating of 16.2. ATonce-Plus runs fully as a task on the Amiga. All memory above 1 MB can be used as Extended or Expanded Memory.

With ATonce-Plus the following video emulations are available: EGA-/VGA monochrome graphics (as far as Amiga allows this), CGA with 16 colors, Hercules*, Olivetti* and Toshiba3100* (* these modes use interlace). All MS-DOS versions from 3.2 up to 5.0 as well as DR-DOS 5.0 and 6.0 have been tested. For more information contact Fonhof Computer Supplies on (02) 639 7718.

Wordperfect Amiga Gone

To all those who have been looking forward to a new version of *Word Perfect* for the Amiga - there aint no such animal. WPCorp has officially disbanded its Amiga beta testers and said there will be no new Amiga product, period!

The reasons behind it are weak to say the least. With a installed base of three million computers they ignore users and madly continue to do a NeXT version. Of course, if the current version is truly an example of the best they can do on the Amiga, it may not be such a bad thing.



TechnoSound Turbo

Upgraded version of New Dimensions' acclaimed hardware and software stereo sound sampler. Simply plug your sound source into the unit and fire up the sampling software. New multi-tasking software features a MIDI sequencer, and a host of exciting special effects including real-time echo, phasing, pitch shifting and other voice synth effects. "...no-nonsense, low-cost, easy-to-use system..." 81%, Amiga Format, September 1991

\$79

Protar Hard Drives

The Last Word In Amiga Hard Drives

The new A500HD series of SCSI controlled hard drives from the German manufacturer Protar are now available in Australia. The standard drives contain high quality 24ms Seagate mechanisms, while the DC range use 19ms Quantum mechanisms with 64 kb cache. These superb drives use the main expansion port & perfectly match the Amiga styling. The optional PSU is only required when RAM modules are installed.

- high speed SCSI controller (900kb/sec or 5 times A590 speed); SCSI thru port
- up to 8 MB RAM on board via Protar autoconfiguring RAM modules
- auto-booting, auto-parking, silent operation: Games switch disables hard drive but retains RAM for memory hungry games, protecting the hard drive against viruses.

- 2 Year Replacement Warranty on Quantum units (One Year for Seagate units)

A500 HD20	\$620	A500 HD80	\$1105
A500 HD40	\$710	A500 HD50DC	\$985
A500 HD50	\$820	A500 HD100DC	\$1175
A500 HD60	\$1015	A500 HD160DC	\$1695

Protar 1/2 Meg. + Clock/Calendar

Top quality surface mount design. Disable switch.

\$75

2 Meg for A500

The 'V2000' expansion from U.K. manufacturer Virgo Developments contains a real time clock/calendar and up to 2 MB of auto-configuring Ram. The board plugs into the trapdoor expansion bay and connects to an internally fitted Gary adapter.

Unpopulated (0 Megabytes)	\$140
Populated to 2.0 Megabytes	\$298

4 Meg for A500

The 'V4000' system is similar to the 2 Meg. system described above, with additional sockets allowing up to 4 MB of expansion RAM.

Unpopulated (0 Megabytes)	\$220
Populated to 2.0 Megabytes	\$379
Fully populated (4 Megabytes)	\$539

Both the 2 meg. and 4 meg. boards leave the main expansion bus free (e.g. for a hard drive). Other population available.

8 Meg for A500/A1000

Cortex expansion fits to main bus, leaving warranty intact.

- Fully implemented auto-configure; Fully operational bus pass-thru
- Uses standard 1M x 8bit or 1M x 9bit SIMMS; Zero wait states
- Special metal 'foot' for A1000 version; RAM test software included.

0 meg.	\$425	6 meg.	\$888
2 meg.	\$580	8 meg.	\$1042
4 meg.	\$734		

KCS Power PC Board

High Compatibility Turbo XT Board for A500/A2000/A3000. The A500 version simply plugs into your trapdoor expansion bay: no soldering and your warranty is preserved. For A2000/A3000 users, an adapter card is all that is needed to plug the Power PC Board into your machine! The package features:

PC Side

Package Includes MS-DOS 4.01/Shell/
GW Basic/Phoenix DOS-Help & Manuals
Video Support: Hercules/CGA/EGA/VGA
Disk support: Int 3.5, Ext 3.5 & 5.25
Extensive Hard Drive Support
Phoenix-Bios - NEC V30 8Mhz
Uses Amiga Serial and Parallel ports
Uses Amiga Mouse and Joystick Ports
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Amiga Side

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Clock/Calendar
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- POWERMON
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- Powerful BASIC toolkit more than 20 new commands.
- Disk Tools Load 6 times faster.
- Tape Tools Works 10 times faster

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Kaotic Games Pak 2

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Kaotic Game Pak 3

Hammerflat, The Power, Moonshine Races, Wipeout, Ghostbusters II, Mega-lo-Mania

New: Kaotic Game Pak 4

Armalyte, Moonstone-A Hard Day's Knight, Lotus II, Champion Of The Raj, Lemmings

Any 2 Games Paks: \$23

Any 3 Games Paks: \$34

Mega Kaotic Games Pak

(all 4 Game Paks)
\$42

Kaotic Koncepts supports the intentions of public domain authors; namely to allow wide distribution of software with minimal copying charges. All Pak prices include postage and handling. These disks plus FISH and many more are available individually for \$2.50 plus \$1.00 P&P for any size order. Catalogue disks \$2.50 including postage. All disks supplied are Nashua brand. Blank disks \$15 per box of 10. Nashua disk boxes (hold 90 3.5" disks) \$17.00

Kaotic Arcade Parlour Paks: 5 disk Paks of arcade action
\$12 per Pak

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Megaball, Missile Command, Sball, Dragoncave, Car, 7-Tiles, Grid-Runner, Rebound, Invaders, Miniblast

Kaotic Arcade Pak 2

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Kaotic Arcade Pak 3

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Coming Soon

Amiga 500 PLUS

Commodore have a few surprises in store for us in 1992. First off the production line is the new Amiga 500 PLUS, with a host of improvements, as Andrew Farrell writes.

If you live in New Zealand, the USA or UK you could probably get your hands on the Amiga 500 Plus right now.

In Australia, we may have to wait a little longer, however it could turn out to be for the best. Although the Amiga 500 Plus sounds like a dream come true for Amiga computing, the machine has also forced software manufacturers to have a serious rethink. Why?

Like the Amiga 3000, the new 500 boasts the complete enhanced chip set and Workbench 2.04 in ROM. The Agnus chip included is the "Super Fat" 2MB version. One megabyte of Chip RAM is included on board, and to accommodate improved expansion potential, the RAM expansion slot on the underside of the machine has been altered.

Giving Agnus a hand is the new Denise chip, looking after the new display modes, most of which are only available if you have the right monitor. These three major improvements have meant a number of popular games, and especially compilations, are now incompatible with the machine.

The reasons vary from the use of disk protection schemes which falter under the new ROMs, to programs which don't like the CHIP memory configuration. Software publishers are busy fixing the problem right now, meaning by the time the machine ships here in Australia, the majority of programs will have been fixed to work on the new machines.

Once again, Commodore are blaming the software publishers for the problem, saying they have broken design rules laid down to ensure compatibility with future machines. And rightly so. In fact, it's high time the Amiga software industry had a serious rethink. The A500 PLUS is only the first of a number of rumoured new machines due for release some time this year.

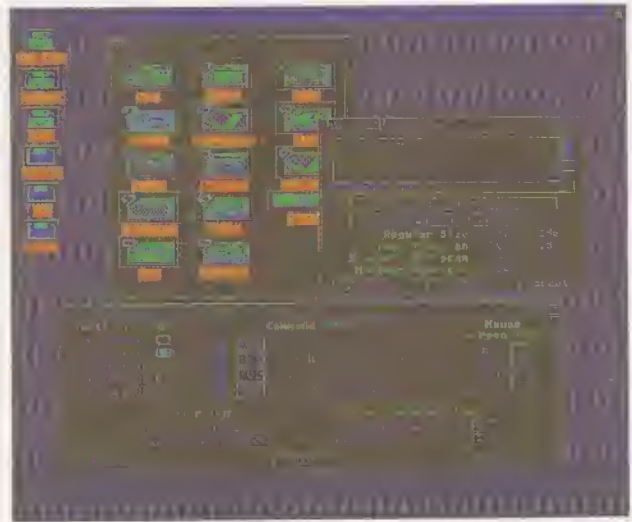
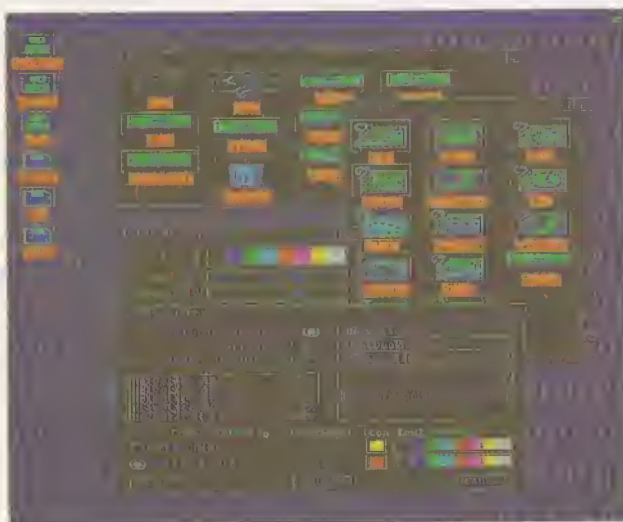
Productivity titles seem to be faring well, but the game publishers are in trouble, something which Commodore would like to see sorted out considering some 85% of their world market is in Europe where the Amiga is used heavily for entertainment.

Well, rumours aside, let's hope the software companies can sort it all out before it becomes our problem. In the meantime, let's take a look at the new enhanced custom support chips and see what new features we can look forward to tinkering with.

Super FAT Agnus

Amiga excels where the IBM PC falters thanks to the fact the 68000 CPU, the central brain of the Amiga, is helped by a number of custom chips. These mighty powerhouses of graphics and sound work along with the CPU, however they also work independently of it. Each chip has been designed for special tasks by Commodore, so they are unique to the Amiga.

The Motorola 68000 CPU is found in other machines - such as the Apple Macintosh - part of the reason why the Amiga can emulate a Macintosh so easily.





Super Fat Agnus

The one limitation of these special custom chips is that they can only address a portion of the total available RAM. This RAM is known as Chip RAM because it can be accessed by the graphics chips. As a result of the fact that this memory is shared by both these chips and the CPU, chip RAM is a little slower for program execution.

The Amiga 500 PLUS contains the new Super FAT Agnus, so-called because it can access a total of two megabytes of CHIP memory. This is good news if you're into graphics and sound. More memory means you can work with more graphics screens in higher resolutions with more colours. It also means you can have larger, more complex brushes when using paint programs. Sound samples can be larger and you can have more applications open at one time which run on their own custom screens. So, extra CHIP memory is a good thing.

New Super Denise

Not so easy to spot the difference here - the new Denise chip offers a number of additional display modes. Our hopes for 256 colour hi-res are still only hopes. However, there are some good sounding improvements.

The new chip is the 8373 HR. The extra modes are: Super Hi-Res, Productivity and A2024 - you will need a special monitor and an adaptor. Personally, I think the new Denise is a bit of a waste of time for most users considering the improvements are only really relevant for high-end applications such as

Quality Public Domain RapiSoft

To celebrate one year of operation, RapiSoft is proud to announce three new Public Domain packs: *The RapiPack Vol #2*, *The Ultimate Games Pack Vol #2* and *The Dynamic Demo Pack*. All packs contain loading instructions and have been extensively tested for viruses. Prices include postage. Most orders are dispatched within 24 hours of receipt.

The Ultimate Games Pack Vol. #2

\$27

Following the success of our ever-popular Ultimate Games Pack, we are proud to announce yet another Games Pack! This pack contains eight disks full of Amiga public domain and shareware games. From action, strategy to role playing and trivia; there is something in this pack for everyone. Over 40 new games are crammed into the pack, some of which are: *BattleMech*, *Bullrun*, *Castle of Doom*, *Chess*, *Dtris*, *GridRunner*, *Invaders*, *Megaball*, *Rebound*, *Sky-Fight*, *TrekTrivia*, and many others! A small amount to pay compared to the amount of enjoyment you will get out of the pack. For only 68 cents a game, it's an offer not to miss!

The RapiPack Vol. #2

\$19

Suitable for both Amiga novices and veterans alike, the RapiPack is a collection of high quality software which everyone can use. Volume two of the RapiPack contains six disks in total; two disks full of games, one disk packed with applications (including a word processor and database), one disk containing a superb graphics and sound demonstration, and another containing a sound editor. A utility disk contains a vast number of handy utilities which will make using the Amiga so much easier! Full loading instructions are provided with the pack.

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Educate yourself and the kids with RapiSoft's Amiga Public Domain Education Pack. Learn vital skills while having fun at the same time; Ideal for teachers, students and parents!

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CAD and as yet few programs offer full support. For the average user, it's a case of so what, who cares and when do we get more colour in hi-res?

Workbench 2.04

Now this little baby is a very worthwhile improvement. Complete with three disks containing Workbench, Extras and Outline Fonts respectively, along with a fab new manual which is far better written than any previous attempts, A500 Plus owners should be proud to own this slick looking operating system.

In the hardware department, the new 512K ROM (the older 1.3's are only 256K) is included - something which you should be able to buy for your existing A500 for around \$99 about now - possibly less.

Workbench 2.0 looks best in hi-res mode - of course the flicker will drive you nuts without a flicker fixer or a nice thick hunk of tinted black perspex. Rumour has it that a new machine due in April this year might fix this problem.

The old SHELL is still there, but you won't need it much. Files without icons can now be accessed from Workbench, and you can view files by name or icon and create temporary icons for files that don't have any.

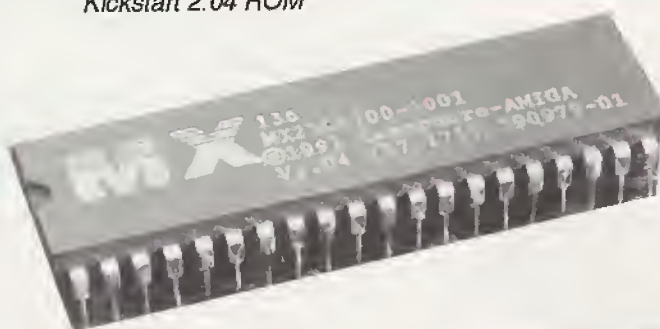
Workbench 2.0 is faster, looks slicker, is far more powerful and offers much better preference control than 1.3. This is the best improvement Commodore has ever made to the Amiga and one which they should be trumpeting from the hills to the sea.

Miscellaneous

There's a few other small changes. The badge is different, there are two extra keys - which are blank (future expansion?) and of course, the base model comes with one megabyte of RAM which you can expand using the A502 RAM expander from Microbotics or Commodore's A501 Plus to a maximum of two megabytes of Chip RAM.

The Kickstart screen is different, sporting a simple insert disk animation. Cute, but definitely right out of line with 2.0's general sleekness. Hopefully this screen will be cleaned up.

Kickstart 2.04 ROM



Super Denise

The motherboard appears to be a PLUS special, not just another A500 upgrade.

Overall

An excellent upgrade to the existing model which was not a moment too soon coming. A few shortcomings - compatibility remains the most significant, and something which will no doubt be sorted out in dribs and drabs.

The extra Chip RAM is a big plus as is Workbench 2.0, however these improvements are most useful if you use your Amiga for productivity or graphics and music.

Unfortunately, the two big shortcomings of the Amiga remain - the flicker of hi-res and the 16-colours of hi-res - hardly any comparison to the 256 colour VGA available on PC's costing about the same as an Amiga 500 with hard drive.

If and when the 500 Plus turns up I would recommend it for serious minded Amiga users - if you're only into games, give the Plus a wide berth.

Let's all hope software companies start treating the compatibility problem more seriously and that Commodore solve some of the Amiga's hardware deficiencies with the next machine - due, according to rumours, some time around the middle of this year.

Existing 500's with revision six mother boards should be able to be upgraded with all these new Chips... see your local Commcare centre or Commodore dealer.

Workbench 2.x / Super Denise New Display Modes

Super-Hi-Res 1280 x 256 4 colours
Super-Hi-Res Interlaced 1280 x 512 4 colours

Productivity 640 x 480 4 colours

Productivity Interlaced 640 x 960 4 colours

A2024-10Hz 1008 x 800 4 greyscales

A2024-15Hz 1008 x 800 4 greyscales

To use these modes you need to connect a Multisync monitor, using a \$10 adaptor available from Commodore, to your Amiga's video port.

As you can imagine, four colour flicker-free productivity mode is hardly any sort of fix for the flicker we get in 16 colour hi-res. Many users who have already tried the Super Denise report strange artifacts on-screen and rarely use productivity mode as a result.

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Budget Sound Sampling

Phon V5

by Daniel Rutter

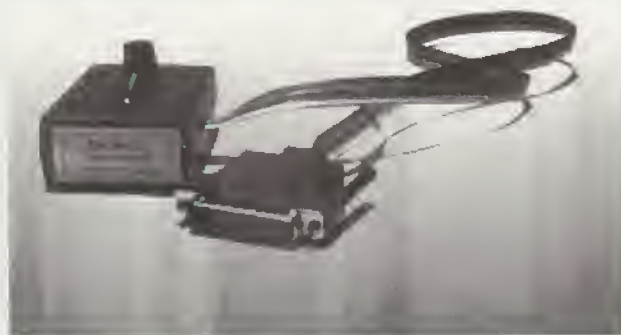
Many Amiga owners have considered buying a sound digitiser, but thought again when they cast their eyes down catalogue lists in which none of the prices were lower than \$150.

Sure, it'd come in handy to put a bit of sound into presentations, or steal some effects from movies for a game, or, of course, just muck about looking for backwards messages on pop records advising listeners to eat their children, but not at that price.

Filling this vacuum in the market are where some people calling themselves Nonchalant Design come in. This Australian company has produced a mono sampler, with just about all the features you'd expect, for a recommended retail price of \$89.

Hardware

What you get for your \$89 is a black box the size of two packs of cards which bears a standard RCA jack allowing easy connection, a knob to set the gain level and a switch to kick in a x10 amplifier, allowing a signal level of +/- 128mV; without the amp it'll take +/- 1.28V. This makes it suitable for microphone, line or headphone level input. Connection to your Amiga is via a rainbow ribbon cable terminated with a solid parallel plug, fitted with thumbscrews instead of those stupid tiny screws that you need a stupid tiny screwdriver to tighten.



Black box, ribbon cable etc.

There are only two complaints I can make about the design - it's hard to take the box apart, since the RCA jack won't shift, and so you could have servicing hassles. Moreover, the ribbon cable is as vulnerable as any other ribbon cable, and will hence die if badly kinked or folded lengthwise. Apart from that, the gadget's fine, and the cable is long enough to allow connection at the back of the computer and the box to be Blu-Tacked to the front of the desk, where I've got it now.

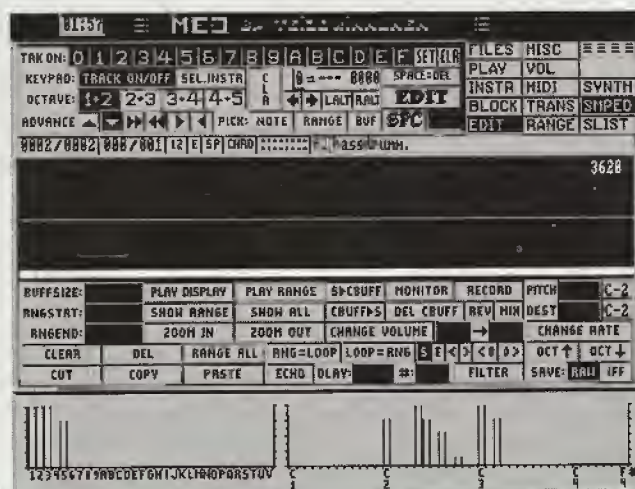
Also included in the pack is an instruction sheet which makes the average lost dog notice look professionally typeset, but which is nonetheless comprehensible and as extensive as it needs to be.

Software

The catch (you knew there'd be one, didn't you) is that, as yet, the Phon v5 doesn't come with any specific software. The manufacturers will provide, on request, a copy of *MED3.0*. This, in case you haven't encountered it, is a VERY powerful public domain music composition package, which can in a pinch be used as a pretty hefty MIDI sequencer as well. If you're at all interested in what really, seriously, is professional quality audio software, you could do worse than give *MED* a look. *MED* also, as you might have guessed, has a sampling capability, which works quite well with the Phon unit.

The only problems with *MED*'s sampling are that it won't sample above about 25000sps (which is generally more than ample anyway), and you also can't set the sampling rate with precision, since the sampler's designed only to sample instrument files, and hence increments in semitones, not direct sample units.

MED 3.0



It's still fine for mucking about, though, and has editing features (reverse, mix, echo) as extensive as my venerable Pro Sound's original software, and considerably faster. Plus you get a very powerful sequencer for your samples into the bargain, with access to thousands of other samples (on many, many separate disks, not included but available from any good PD library, like for example that of Megadisc or Prime Artifax), not to mention its own enormously capable synthesiser built in; the features go on and on. It'll do you for a while, I should think.

Sound Test

Now I decided to go the whole hog, and wheeled out my review copy of the magnificent *Audio Engineer II* software. I'd previously reviewed it using the Imager sampler it was designed to work with, and I must say the Phon stood up very well to the superlative standard set by the far more expensive sampler. Noise levels were considerably higher, of course, but I actually managed to use the Phon with the HI-SPEED option on AEII. This meant a mono sampling rate of 55930 (!) samples per second, the sound quality from which is very good indeed, provided the gain is set carefully and a high level input signal is used to avoid having to use the distortion-injecting amplifier (which is, nonetheless, an excellent cheapo way to

avoid using an expensive active gain control).


I'd like to be able to tell you about the innards of the Phon, but I couldn't rip it to bits thanks to the robust mounting of the RCA socket, which steadfastly refused to budge. The switch and knob are mounted with the usual nuts, but thanks to that socket maintenance could be a little hairy - but I don't think this would really be an issue, as there's precious little to break inside the Phon unless you do silly things like pumping 250 watts through it.

On the outside, though, everything looks in order, and I'm pleased with the "real" plug on the end of the cable, instead of one of those silly thin little blue things that are really meant for use inside a case, and can only be unplugged by twisting a screwdriver and bending all your pins.

All in all, I think the Phon v5 is a bargain at the price, and deserves considerable success among the non-professional users of the Amiga, and may well come in handy as well for the programmer on a budget, or the presentation creator who doesn't run to an expense account. Definitely in the cheap and cheerful category, and highly recommended.

Should you wish to purchase a Phon v5 sampler, you can write to:

Nonchalant Design, PO Box 663, Kensington 2033 or Computer Addiction, 226 Brunker Road, Addamstown 2289, phone (049) 52 3177 Fax (049) 523388.



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RAM to spare than a 1MB machine with a smaller workbench and data both on disk.

I can take the entire *MegaDisc* software catalogue, un-PowerPack all the cat files I want, join them and repack, giving me a continuous catalogue file just like the one Tim Strachan uses on his A3000. This is simply not possible with 1MB.

And as for multitasking, I can have my word processor running over the full Workbench, while a disk copy is going on and a hefty animation loading. Speed does suffer with the humble \$7 68000 CPU, but not significantly thanks to the good old custom chips. Let's see you do that on a Mac Quadra!

I can use a real RAD: or similar recoverable ramdrive; on 1MB you're running on skeleton staff if you stick anything useful into one of these. And, of course, I can run all those enormous Eric Schwartz (and other) animations, just to annoy my mates.

Hard Disk

When you're running from Hard Disk you can have a HUGE C directory. For many moons I have been honing my stock one disk Workbench until it's as finely turned piece of system machinery for my personal purposes as you could imagine, carrying an easy 2MB of uncompressed data squashed down with Imploder4.0. However, this has meant the exclusion of various useful commands I use but seldom. Seldom, but often enough between them to occasion many forays out into the Land Of The Killer Disk Boxes. Twelve of the darn things. Not fun.

So now my C's full of a merry mixture of ARP, DOS and who-knows-what; there's only 600-odd KB there at the moment, since I haven't bothered to include a lot of the exotics seeing as I'll only be keeping the drive a couple more days, but an easy meg and a half would not be out of the question, even with compression.

The same thing goes for libs; all those odd little (well, odd BIG usually, wherein lies the problem for floppy users) libraries for obscure programs which nonetheless pop up depressingly frequently

as a group can be lumped into the libs directory for safekeeping, avoiding the need for yet more frustrating ventures to the Planet Logical Filing Forgot.

And fonts, too. Hundreds of the little blighters, if the mood strikes you, and lots of room for exotic formats used by DTP programs too, eliminating any need for the Spawn Of The Eight Inch Shugart From The Pit (I'm on a roll tonight ...).

How about an integrated operating environment? Wouldn't it be nice to always have your favourite screen saver, mouse accelerator, function-key utility (make it simple, just say AutoCLI) handy whenever you wanted it, along with a full C directory and all the utilities you could wish? With floppies, there's seldom room on a program disk for such frills, and miracles like Paul Hayter's WhizzoBoot (brilliant - a borderless CLI on bootup, mouse accelerator and screen blanker ON A BOOTBLOCK; see *MegaDisc 24* if you're interested...) only go so far. With a Hard Disk, no problem, as long as your desired program is HD installable (and virtually all are, especially if you always ignore anything purporting to be an automatic HD installation utility).

This also means you actually get rather more than the logical number of floppies-worth on your hard drive; on the 52-megger I'm using, which gives a "real" 49MB-odd, you should traditionally be able to fit about 59 floppies worth (since a formatted 880K gives only about 837 usable). However, if you disregard all the addendum like S, C, Libs, Sevs and L, you're more likely to score around the 63 mark. Not vast, but nice.

In Retrospect

So there you go, everything you could have figured out for yourself about the expensive expansions that'll bring your Amiga's specs right up to date with the big boys.

Might I point out that when the hard drive goes back, I'm holding onto the SCRAM. When the estimable Mr Norman Jackson wants it back, I'll buy it from him. I can't survive without it any more.

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Getting down to Business

with help from the Public Domain

Public domain business software might sound a bit risky, but as George Kimpton discovered, the quality is better than expected - as is the price!

Much is said these days about illegal copies and pirating of commercial software but little is heard of the veritable smorgasbord of Public Domain software that is floating around and which is free for all to copy and use as you will with no risk of prosecution. With this software, the old excuse about getting fingers burnt with expensive software that doesn't perform, no longer holds water.

With the availability of such a wide range of software and the cheapness of it - the cost of a disk to copy it onto - it is possible to run an Amiga quite effectively without ever purchasing commercial software.

Sure Public Domain programs may not have all the bells and whistles that the big names have but so what if they do the job.

Surprisingly some of this Public Domain, or PD as we will call it, software is quite sophisticated and one wonders why the author has not sought commer-

cial reward. Some commercial software first saw the light of day as PD software.

Feedback from users and bulletin boards allowed it to be polished and debugged and it finally burst forth in all its glory in the shops with a price tag on it.

Regular readers of ACAR will be aware that Andrew Farrell has selected the pick of these PD programs and made them available through Prime Artifax at a nominal cost. Considering there are over 550 Fish disks out there, to say nothing of the many other PD disks, this is no mean feat.

How good were the choices? Well, let's have a look at the four theme disks currently available: Spreadsheets, Finance, Database and Word Processing. The disks sell as a pack for \$14.95 including postage and handling or individually for \$8.95. Prime Artifax provide good phone support if you have any problems getting a program to run.

Finance

This disk contains five programs, *Bankn*, *Budget*, *YourMoney*, *Checkbook* and *LoanCalc*.

BANKN is a very comprehensive program which covers just about every aspect of keeping track of your finances.

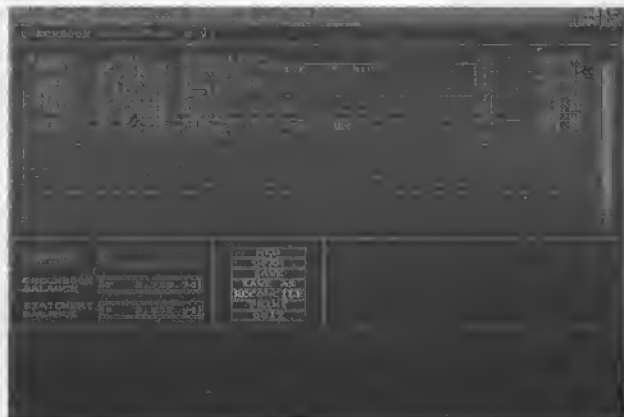
It is comprised of seven sub programs which allow you to open an account, customise an expenses code and set budget restraints, do a monthly reconciliation and select either a detailed or specific report. At the end of the year facilities are provided to modify the system for next year. Search facilities for specific items is provided.

The Help key is available to provide assistance when needed. Documentation is not lengthy but adequate.

BUDGET is a journal type situation where it is possible to keep track of cash input and expenditure against a date. The balance is automatically provided at the bottom of the sheet. Very basic but effective. The only problem, and I am not being racist, is the French English in the documentation, it's as bad as Japanese English.

YOUR-MONEY keeps track of your cashflow, looks after budgets on month to month basis, prepares reports on month, year or specific date. It divides money movements into folders, accounts and transactions. Password protection is possible if needed. Auto transactions on a regular basis are possible and using a "rethink" command the program checks against previous data to see if the current entries are reasonable i.e. it checks to see if you have done something stupid

Checkbook Accountant



Food Manager





Text Plus

and spits the dummy if this is the case. It's a pity that more programs don't have this facility.

Reconciliation with your bank statement is possible and funds transfer between accounts is provided for.

CHECKBOOK is a simple way of balancing chequebooks, tracking bank transactions and recording budgeted transactions. It is possible to scan through a listing of activities to locate specific items using scroll bars. This is an early version which the author intends to update.

LOANCALC is for those who need to keep track of loan repayments. It is different to most programs of this type in that it allows for variable repayments rather than fixed repayments. It can also be applied to credit card repayments and other similar loans. Provision is made for lump sum repayments and the recalculation of amortization tables.

Spreadsheet

This disk contains three spreadsheet programs: *AnalytiCalc*, *S-Calc* and *Spread*.

ANALYTICALC appears to be a very comprehensive spreadsheet plus program. In the author's own words in the 105 page manual it "is an electronic spreadsheet program and integrated system originally written in 'portable' Fortran". Its "primary function of spreadsheet contains the means for integrating word processing documents, running other programs under its control, integrating its graphic output and accessing data files created either by selective writes from its own screens or

by other programs".

Wow, quite a mouthful, but seriously a quick run through suggests that this is a rather powerful program though I feel it may not be as user friendly as we are used to. Nevertheless worth a look if you want to produce written reports based on spreadsheet data. Designed to integrate with existing favourite programs.

S-CALC is a modified version of an earlier fairly basic spreadsheet called SC. Unfortunately there is very limited info with the program on how to use it but it may have promise for those with enquiring minds.

SPREAD is a fairly basic spreadsheet with a limit of 36 X 60 cells and provision for calculation using the four basic maths functions. Summing of columns and rows is possible. Appears easy to use.

Database

This disk contains five database programs: *DataEasy*, *H-Dial*, *Home Manager*, *Hype* and *bBaseII*.

DATAEASY is a good but simple data storage and access program. It gives a choice of storage methods depending on memory available and search speed desired. You can define the format of each record and choose whether you want the data spoken or not. It can be used for mailing labels or telephone dialling through an installed modem. Search and sort facilities are provided.

H-DIAL or Hyper Dial as it is known is an address book type database listing names, addresses and phone numbers up to 5000 records. Provision is made for search and sort of records and once a

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phone number is selected it can be automatically dialled on request. It can be put to sleep with a shrinking Ikon which sits patiently waiting on the screen to be reactivated.

HOMEMANAGER is a multi purpose database which includes a Contacts Manager - phone numbers and addresses, Numbers Manager - a calculator, CashFlow Manager - a monthly budget / balance sheet record (rounded dollars only), Dates and ToDo Manager - a calendar utility and reminder, Food Manager - a grocery list builder and recipe database and finally a Plastic Money Manager to keep track of credit cards (four major and four others only). The author plans to add two other facilities at a later date. This is Shareware with extra data being supplied on registering.

HYPE or Hyperbase as it is known requires a little thought in setting up a record but a good tutorial takes you by the hand through setting up the record format. Three types of file are used, format, index and data. The data file is set up in such a way that it is possible to work through it with a text editor to remove or correct corrupted data. Deleted files can be recovered under some circumstances. Browsing through records is easy and sort and search is provided for. Print out can be arranged in mailing label format if required.

BBASEII is easy to set up and provides for up to nine fields per record with titles of up to 19 characters. Each data field can contain up to 46 characters. It uses the Function Keys for a number of actions such as Sort and Search. Sorting can be forward or reverse. Print output can be individual records or complete database.

Wordprocessor

Contains *GwPrint*, *TextPlus*, *Calendar*, *Lila*, *Liner*, *LabelPrint3.5*, *PrintStudio*, *SuperRetLab* and *AmigaFox*.

GWPRINT is a Shareware printing utility specifically intended to allow manipulation of existing text files for printing or sending to disk. It offers a wide selection of adjustable features for

controlling paging, headers, trailers, margins and various print styles and sizes. Headers and trailers are independently configurable to include titles, dates and page numbers. Control of print settings is by clicking on gadgets and each set up can be saved for future access. Total page control is easily possible.

TEXTPLUS 3.0E is a fully fledged Shareware word processor which, while being very versatile, allows the use of inserted codes to achieve its format controls in addition to menu settings. Hot keys are available for most functions. The Readme file is pretty comprehensive at 21 pages in its explanation of how to use the codes but it could get a bit tedious looking up codes as opposed to using menu items or hot keys. Comes in English and German versions.

CALENDAR or Calendar Factory is a useful program for preparing calendars in a range of ten different formats which can then be saved for future access or printed out as needed.

LILA is really for the professional as it is a Shareware Utility that allows you to print listings or text files on a Postscript Printer.

LINER is intended for use in producing outlines of books, articles, etc. Unfortunately the version on this disk can only be used with Workbench 2.0 and anyone using 1.3, like me, needs the version on Fish Disk 394. This version according to the ReadMe file is menu driven and a pretty comprehensive program allowing most of the usual text editing facilities such as copy, cut, paste, search and replace etc. Some hot keys are provided to facilitate actions. Cut text is saved to the Clipboard where it can be picked up by any other program which supports it like Notepad.

LABELPRINT3.5 was originally written by the author to avoid all the trouble hand producing labels for his disks. It is a testimony to teutonic thoroughness, it doesn't miss a trick, everything is covered both in the program and in the Document file. I am sure the printed out result must be something to behold and, for anyone familiar with its operation it may be quicker than by

hand.

PRINTSTUDIO is an all-purpose printer-utility with a very comfortable graphic interface. Some of the capabilities include: Hardcopies of IFF-Pictures (also HAM, EXTRA, HALFBRITE and OVERSCAN) - hardcopies of any part of a picture - hardcopies of screens and windows - printings of texts - printings of blocks out of a text - saving screens and windows to IFF-files - changing the colours of screens and pictures - easy adjustment of the printing parameters - easy loading and saving with a file requester - automatic starting of the preferences program - and much more. This is an extremely versatile program well worth looking at. It provides many in depth control features for the printout such as density, aspect, shades of grey etc which are seldom found.

SUPERRETLAB is for anyone who needs to produce labels with a return address for the return of letters etc. It is set up for a standard label 3.5 inches X 7/16 inch, whatever that is in metric, with 19 or 23 characters per line depending on which condensed print is used. Three, four or five line printouts are possible.

AMIGAFOX is an editor of some sort, that much is obvious. It appears to provide both text and graphics editing but beyond that point I am not prepared to go without spending more time playing with it. No ReadMe or document file is present.

Conclusions

I personally think the disks are worth a good look. Admittedly the authors accept that their programs may have bugs - but what program doesn't. In many cases it is possible to obtain the source code for the programs, allowing those who are interested in writing software an excellent opportunity to study how it is done or to modify the program to suit their own needs. One thing for sure the price has to be right, even if only one program is really what you want.

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Desktop Video

with a little help from Abacus

George Kimpton, amateur desktop videophile and disgruntled film editor, test flies the path to video success with help from Abacus' Desktop Video Guide.

Have you noticed that everywhere you go, when you are supposed to be relaxing on holiday, there will always be someone with a video camera. It's like a monster from outer space taking over the planet. It sneaks up on the intimate interludes in the life of innocent plants and animals, to say nothing of you and me, when least expected.

It pokes into every corner seeking out your most embarrassing moments and recording them for posterity or TV shows.

These exposures are the modern day equivalent of the home movie of yesterday. Those of you who, like me, remember the excruciating boredom of sitting through some long past home movies, will still cringe at the thought of sitting through some unadorned home videos.

Salvation is at hand though for those of us who have been tempted or talked into buying a video camera. In that dim distant past we vaguely remember it was no mean feat to be able to cut, splice and edit 8mm film, to say nothing of being able to install a decent sound track to brighten up proceedings - I know, I tried it. Today you can all become budding Spielbergs, that is as long as you can wade your way through the technical jargon and equipment of Desktop Video.

Getting Started

Why would mature sane people even think of making and editing their own home videos? Maybe we are masochists at heart or the creative urge is simmering just below the surface. One thing is for sure, you will feel over the moon when you produce your first epic and someone says "that was great". How do we go

about getting over the hurdles and learning to produce our first epic?

If you read an earlier article of mine on my experiences in producing my first video you will have some idea of just what can be involved. I was lucky that I was able to work with an experienced producer prior to that experience. My friend Les knew his way around cameras, editing suites and tape recorders and had a knack for putting scenes together just right.

I asked questions about everything and hopefully learned a lot from one who knew Desktop Video. Not everyone is as fortunate as I was, so how do you learn? If you have plenty of money, although I don't know who does today, you can take a course at TAFE colleges or some other schools. If, like the majority of us, you have to watch the bank

balance then you can buy the *Amiga Desktop Video Guide* from Abacus and learn the hard way.

A Book Start

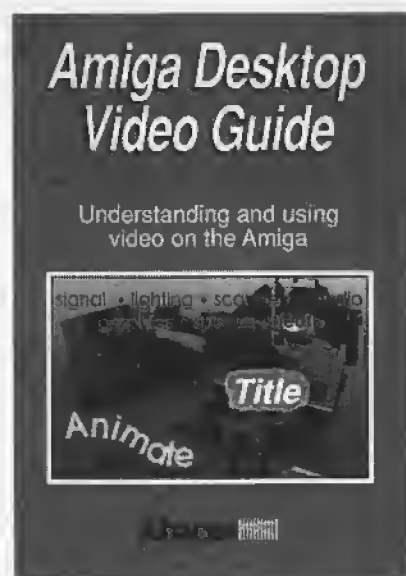
Don't get me wrong, I am not suggesting for a moment that the book is not good value for money because it is very informative, covering all aspects of Desktop Video. It is just that you can only put so much into any book for the asking price. To produce a book with everything in it would cost a fortune. The *Video Guide* is an excellent starting place but you must be prepared to dig deeper, use the knowledge it contains as a starting point and experiment.

The Amiga owner's ability to experiment is legendary and has pushed the performance of this computer way beyond what was anticipated in the early days. That same desire to experiment can push you on to bigger and better videos if you let it when you build on the information in this book.

The *Video Guide* is American in origin but refers to and discusses other TV systems in use throughout the world. It starts out with brief discussions of the various Broadcast Standards, types of cameras and the terminology as applied to the video signals themselves. The whole first chapter is in fact a glossary and discussion of many of the technical terms we often find so baffling.

It then proceeds to dissect the various breeds, types etc of video cameras and recorders including the different recording formats in some detail. Fixed and Flying Erase heads are discussed along with Insert and Assemble Editing and all those little things that make editing easy and effective.

Next comes Genlocks with many of the more familiar names covered, but remember this book was printed in 1989 and some of the later ones will not be mentioned.



Next comes digitisers and scanners followed by Frame Grabbers and Frame Buffers and their uses. The pros and cons of black and white cameras versus colour are considered along with the use of colour splitters and the problems of real time digitising of live video.

Considerable time is spent scanning and discussing the various paint and 3D rendering programs available at the time of printing. Even though some excellent new programs were not available then, the groundwork is set for comparing and assessing them and their ability to fulfill your production needs. The various forms of animation are also discussed with reference to programs available at that time.

The diagram illustrates the VideoGenlock system architecture. It shows the following components and their connections:

- Amiga RGB out**: Connected to the **Video thru** input of the **Genlock** block.
- Video thru**: A block with inputs for **Video thru**, **Video in**, and **Genlock**. It has outputs for **RGB out** and **RGB in**.
- Genlock**: A block that receives **RGB out** and **RGB in** signals. It is connected to the **Video In** and **Audio in** inputs of the **Master VCR**.
- Master VCR**: A block that receives **Video In** and **Audio in** signals. It is connected to the **Camera** block.
- Camera**: A block that receives signals from the **Master VCR** and outputs to the **Video thru** block.
- Video thru** and **Genlock** blocks also have **VIDEO** and **AUDIO** inputs, which are connected to the **VIDEO** and **AUDIO** outputs of the **Master VCR**.
- VIDEO** and **AUDIO** outputs: Two blocks that receive signals from the **Master VCR** and output to the **VIDEO** and **AUDIO** inputs of the **Video thru** and **Genlock** blocks.

titling for, after all, the effect on your audience of those first few introductory seconds can make or break you.

Music and sound tracks and their importance are discussed from both sides. The selection of the audio gear such as microphones, mixers, tape decks and speaker reproduction systems are briefly considered. From the other side computer manipulation of the sound, digitising of the sound track and

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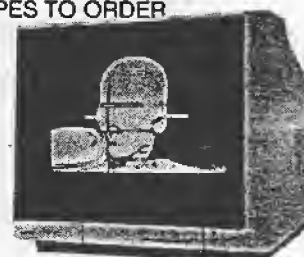
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the software to do it are all looked at along with midis and editing tips.

Special effects, sound and video, and the means of achieving them are the subject of the next chapter. The types of effect that can be achieved with cameras, recorders, frame grabbers, digitisers and paint or sound sampling programs are all looked at. Freeze frames, time lapse, white levels and colour manipulation along with cuts, fades and zooms are some of the techniques discussed.

Setting Up

Finally what do you need in the way of gear? What can you get away with and how much will it cost? Systems from a simple low cost and basic setup to top of the line semi professional are detailed with typical costs being provided, but these costs should only be

taken as a guide as they are American and at least two years old.

The last chapter is labelled Advanced Techniques but is little more than a list of ideas you might use to make your fortune. How you use them is up to you.

In the final analysis this is a good reference book with lots of useful info, but it or any other book can only teach you so much.

Practical experience is the best teacher and this book is a good starting point. It will at least make you familiar with the technospeak of video so that you don't look dumb when someone starts throwing words around like chrominance and luminance, flying erase heads etc.

It will also make you aware of the various types of equipment available, what it can and can't do and then give you the means to assess your need of

such gear to create the effects you want. It will plant the seeds in a hopefully fertile mind from which may come great masterpieces of video, but that is up to you. If you are the typical Amiga experimenter the world may be your oyster as you take what you learn from this book, develop it and delve into the wonders of the world of video.

My final offering is a quote from page 224 of the book. "If you don't have the money to spend then careful planning and a creative imagination will be your primary tools. Some of the most effective and clean productions ever produced are very simple and don't use hundreds of special effects." This book will certainly give you the knowledge, how you use or apply it is up to you. Good editing.

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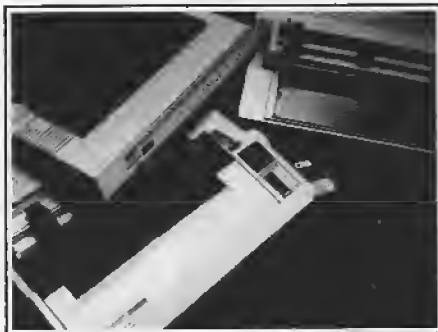
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Getting Down to Fontdamentals

(Tricks with FONTS and DEVs)

by K. Oss

What can be assigned without being assigned, I ask you? It's quite simple really, Devs can be.

And so can Fonts be but not "C". There may be several others as well but you'll have to experiment like I had to.

Having said that I suppose I'll have to expand a little on what I've revealed thus far. As regular readers know, Amiga follows a path when he looks for commands and/or files which means he looks in:

- 1) The current directory
- 2) The root directory
- 3) The "C" directory
- 4) Whatever else you've added to the path

If you ask your Amiga to print something he'll look about until he finds the Devs directory in the root directory. In the devs directory he'll find the Parallel.device or Serial.device and printer.device. Also in this devs directory will be the Printers directory with your printer driver file in it. Having espied what he desires he'll then use the information to print out your request.

But what if you have a disk so replete with vital information that there's no room for a Devs directory? Well, not a problem. One needs only to format a new disk (use the initialize command under the "disk" menu on your workbench). Name the disk "Devs" and copy all the files from your devs directory onto the root directory of this disk.

IMPORTANT NOTE: The files from the devs directory should not be placed in a devs directory on this disk. All the relevant files should be in the root directory, i.e. The disk itself becomes the devs directory.

Now with this disk ensconced in your external drive, ask KK to print something. Did you observe the disk activity

light illuminate on the external drive?

Well, do it again and watch it this time.

OK? Good, that was the Amiga and Co. getting their information for printing from the files on the devs: disk even though you didn't assign it there.

Eh?Why?

Because, that's why.

No really, before you made that devs: disk Ami would go to the "logical device" called devs on the boot disk. It's called a logical device because the devs directory does not exist in space, i.e. one cannot reach out and touch it. It's just a bunch of excited electrons ripping around some smoke filled circuits in your computer. The devs: disk on the other hand is a virtual device. Yes, that's right, you can virtually touch it. Now those micro men would rather use a virtual device than a logical one.

If you ask your Amiga to print something he'll look about until he finds the Devs directory in the root directory

Perhaps they're virtuous little people which is rather illogical considering the calibre of some of the games they let you play.

Anyhow, they'll go to this device in preference to the invisible one provided that a) the disk is mounted in a drive and b) they haven't already accessed the logical device before the virtual device (disk) was mounted. No dear not like a horse ... get off it. It means inserted into the external drive.

Now some tricks with FONTS: Now fonts can be used like this as well. Just

format a floppy and fill it full of fonts of all fashions and forms (keeping them in the root directory) and name the disk "fonts" (without the inverted commas). With this disk in the external drive, every time you ask for an alternate font this is where the wee workers will look. There's still the odd trap or two though so here are some font phenomena.

First of all the little man in there who looks after them is Little Lord Fontleroy (well, what else would you call him? I'm open to suggestions).

He presides over a set of characters for each font size and shape. There is one special font set called a ROM font. This consists of the Topaz 8 font which is always resident in ROM (Read Only Memory). In fact you can completely, utterly and unequivocally remove the font directory from your workbench disk and suffer no ill effects other than being unable to select another font style for any special applications e.g. Notepad.

The other font type is the disk font which, as the name suggests, is resident on a disk either in a font directory or in the root directory on a special disk called fonts:

If one were to open a CLI window and type in `dir fonts` one can observe the manner in which these diskfonts are stored. Perceive if you will, there are several font directories (topaz, sapphire, diamond etc. etc.) plus their matching files (topaz.font, sapphire.font etc. ad nauseum). These two components together make up the three components of an Amiga diskfont. That's right, one + one = three.

Component one is the file or files in the directory.

Enter `dir fonts/topaz`

See those numbers listed on the screen now? One of the numbers may be 8 and

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is in fact, the file containing the bit maps of all the eight pixel high topaz shaped characters. Other numbers represent different height character sets.

Now being a rather unassuming chap I won't assume you all know what pixels and bit maps are so hereinafter follows a description of same.

Pixels are picture elements and merely represent the smallest size dot which can be placed on the screen. Now imagine if you would a black splodge on the screen eight pixels wide by eight pixels high. This would represent an eight by eight bit map in which every bit was turned on (ie. 64 bits = 64 pixels turned on). A full stop would be a one pixel character in which the top seven rows of pixels were turned OFF and only one pixel in the bottom row was turned ON. Then again we could turn some of them off so only the ones filling the shape of a capital A were turned on. Now I don't know how many would be ON and how many would be OFF, but I do know that the information Lord Fontleroy uses is the bit map for capital A. 'Nuff said? Good, on we go to greater heights.

We now have two components of our font - 1) the file or files in the directory and 2) the directory itself in which the number files reside. The third component is the pointer/index file or the .font files seen listed under the directories. The Topaz.font file for instance inclines Lord F. towards the topaz directory but also has another important function. It contains an index as to which size fonts will be espied in the directory when he arrives there.

Some programs, one of them being Notepad, tell Lord F. to check this index against the directory contents and ensure everything is OK. If you have removed a particular size file from the directory then he assumes something has gone terribly awry and he won't use any of the sizes in that directory. That is to say, if you were to remove say, 14 from the diamond directory, then Notepad cannot use any of the diamond fonts.

Now I dare say there is someone out there who knows how to rebuild the .font file to delete 14 from the index. It certainly isn't me. There's probably a Public Domain program around that'll do it for you. Let's know if you find one. (ED?)

Deluxe Paint though, doesn't use the index part of the .font file. Electronic Arts seem to have employed some other dinky dudes to do their work. They're not interested in how many sizes are there. As long as at least one is present they are happy.

Now I dare say there is someone out there who knows how to rebuild the .font file to delete 14 from the index

In *DPaint Two* however, they are not without their problems. If you've mounted your fonts: disk in df1: and selected "Load Font Directory" from the font menu everything goes smoothly as the fonts are loaded into memory. Now provided your expanded list of fonts does not reach the bottom of the screen when you pull down the menu, then everything will continue to go well with you. Woe betide however, that person whosoever possesseth a menu which exceedeth this delicate dimension. Either your screen will go black or more likely the program will crash. There's a fix for this as well though. Just go out and spend a few hundred dollars on *DPaint Three*, it uses a different method of displaying the font menu.

Don't forget ... the font directories (topaz, siesta, opal etc., must be in the root directory along with all the corresponding .font files for the font: floppy to work.

Now let's finish off with some questions and answers

1) What's a pica? a. Someone with false teeth trying to say pizza, or b. A centuries old typographic term of a Pica Point or 1/72 of an inch.

2) What's proportionally spaced mean? a. A character who gets weirder the more he/she gets into computing, or b. Each character printed receives a space proportional to its width. eg. i l : ! etc. get a narrower space than M and W for instance.

3) What does Kern mean? a. A company that builds houses, or b. The term used for the process of precisely

fitting one character to another. For example open a CLI and type "another". Now note the space between the "o" and the "t". It looks slightly wrong because Fontleroy doesn't kern his characters.

4) What does a serif mean? a. What a toddler at the beach might say to a policeman if he asked what was in the bucket or b. A font style in which the characters have no tags on the end of the letters (eg. Topaz is a serif font and Diamond is sans serif).

Oh, and one last piece of absolute trivia. Were you aware that the terms upper and lower case have nothing to do with how high the boxes are stacked in Franklins. Actually they refer to the fact that, in years past, printers used to keep their letter stamps in boxes (called cases) beside them. To make it easier to find the correct letters they kept the capital letters in the top of the case and the small letters in the bottom. True story.

See you next month.

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For Beginners Andy's Attic

by Andrew Leniart

Confusion with LIST

Many Amiga users are people that also use an IBM clone or once owned a C64. The Amiga's ease of use can often cause a bit of confusion when one is used to the ho-hum type of work one does when working with the aforementioned machines. This rings true with the way the Amiga displays its file types in the CLI.

If we do a Dir of a directory in a CLI, we get a list of file names and directories and that's about it. But which are the

executable files? It's easy to tell the icon files because they all have an extension of .info, but recognizing the executables from the IFF or DATA files, often results in people typing in the names of the files they see on screen until one of them does something.

You could read the docs first, but who the hell reads the docs first anyway? Reality is that when most people try new software, they will fire up the program first and then turn to the docs when all else fails. This is a most common occurrence when digging around some of the latest PD disks you may have just got hold of.

I can hear some readers out there mumbling, but what about the LIST command? Unfortunately, LISTing the files is not much help here at all as the extra information you get does not help you determine which one you need to type in to run the program. Enter LLIST written by Nic Wilson.

LLIST is a command which you can turf into your Workbench 'c' directory for just such an occasion. It will display all the normal info that the Amiga 'list' command shows, but includes information about the type of files which are displayed as well. You'll notice that LList is a fair bit slower than the AmigaDos LIST command as it has to read each file to determine what it is, but the fact that it could save you a considerable amount of time and key hammering in a large directory full of files quite often makes the wait well worthwhile.

The current latest version of Llist is V1.0 and will recognize the following types of files among others.

EXECutable - This is the sucker you're looking for to start that program you haven't read the docs on yet.

ASCII - This is a straight text file. Usually recognizable easily enough by an extension of .doc or .txt tagged to the end of it.

DATA - This is usually a support file which is read by the main program (exec) and can contain various information depending on what the software is supposed to do. Ie: If it's a game, then high scores may be kept in a data file.

IFF - This is usually a picture of some sort or sound file.

ICON - Another one which is easily recognizable by its name extension of .info. Not to be outdone by clever names though, Llist recognizes icon files as such and displays information telling you so.

Llist recognizes other types of files as well, but the ones listed above would be the most interesting to most users. Llist has been released as public domain so grab yourself a copy of this little gem so that the next time you come across a directory filled with confusing file names, Llist the directory to be enlightened.

Fonts Freaks Look Here!

Anyone and everyone that dabbles with word processing in a serious way will probably collect a series of favourite fonts. On my own hard drive, I have no less than 30 different fonts which I use on occasion, but rarely more than two or three of them on a regular basis. It should be said that 30 would probably be considered by some as a small collection.

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When the need arises to use a different font, it can take hours to go through and load them all to remember what they look like so that a suitable one may be selected. Pleasing to the eye was a program I recently acquired by the name of ListFont.

LISTFONT V2.4 by John Rowe of Toowoomba in Qld is a shareware program which (surprisingly enough) allows you to view your fonts quite painlessly. Here is a small extract out of John's Doc file which came with the demo version of this program.

"ListFont was born out of an intense curiosity to know just what was lurking in my 5.4 Megabytes of Font Directories. I have seen programs which allow you to examine individual fonts one-at-a-time, but what if you want to see the entire contents of your font directory? Who wants to sit there for hours clicking on umpteen million font entries? Thus ListFont was conceived - a program to show multiple fonts one after the other on the same screen. From this simple concept it grew ... quite a bit actually"

... And it would appear that grow it certainly did. Listfont may be started via the Cli or Workbench, creates its own screen when showing fonts and has more options in it than you can poke a stick at.

Fonts may be viewed in all of their point sizes or just the ones which you are interested in. By toggling options with your mouse, you can select between High-Res and Low-Res displays.

Interlaced display may be selected for those who have a flicker fixer attached to their machine. The 'string' shown by ListFont when it displays your fonts is configurable. This is great if you are looking for a font that will complement that nice title you've thought up for your creation. You can enter the words you wish displayed and ListFont will show your title in all the available fonts, screen after screen to help you decide which one to use.

To sum up, there is more to ListFont than first meets the eye. Well worth having a play with. The demo version of this software is fully functional and may be copied freely. However the full version does not have some annoying screens which you must bear with when starting the demo version. This makes a

good incentive to send the bloke a donation and encourage him to continue programming.

John says in the programs doc file that if people support the product, he will continue to improve it and add even more features. Registration will also get you a disk full of other useful software which John has written. Grab a copy of LISTFONT from your nearest PD outlet Today and check it out!

AmigaBASIC User Tips

When you save a program in AmigaBASIC, you automatically get supplied with the familiar dreary old basic Icon. So if you write a program which you are particularly proud of, you may decide to create a custom Icon for your masterpiece. The problem is that if you edit your creation later and save the changes, you lose your custom Icon as AmigaBASIC overwrites it with its own icon all over again.

One way around this problem is to rename your Icon to something else before you save and then change it back. There is another way, which you may find easier and more convenient. Try this out for size..

1. If you are going to edit your program, run it from Workbench by double clicking on your program's Icon and hit <Ctrl-C> immediately its name appears on the window after Basic has loaded. This will stop the program from executing any further, so you can bring up the list window to commence editing.

2. After you have finished editing and re-save your program, close BASIC to return to Workbench where your Icon will still exist in the window where you originally ran it from. Now take a snapshot of your custom Icon using the Workbench pull down Snapshot menu. Close the window and re-open it again and you will find that your Custom Icon is still intact!

Okay, that's it from me in beginner's corner for this month. Look forward to more hints and tips from us in the next issue. Till then, get yourself a copy of the software I've spoke about here and have a play with it. It's all out there, ya just gotta reach out and grab it. Till the next time.

AMOS Column

Part 2

Judging by the general scrolly demo written in AMOS, you will find that most are jerky, have flickery graphics, and are a general eyesore. The reason is that not many programmers look for the best possible means to accomplish a scroll.

The first commands that most people look at are ones like SCROLL 1 and DEF SCROLL. These are good for some applications, but if you are trying to emulate the smooth scrolls usually found in Assembler demos, then closer study of other methods is essential.

Another bad technique that a lot of people use, is defining BOBs as letters and to send them across the screen. This leads to very bad jerking of the display because of the amount of Blitter time needed to have so many BOBs on the screen.

This month I will be going through my own method of achieving a smooth scrolly message. Through using AMAL and Hardware scrolling, we have the beginnings of a good demo.

To start this tutorial you will need the following:

- * A 32x32 iff picture font.
- * A screen, 640x32 pixels
- * A pair of round end paper scissors
(in the form of the SPRITE GRABBER).

Firstly, load your picture font into the sprite grabber and cut each letter out. Make sure that you cut a blank space for image 1. The letters should correspond in that letter A is image 2, B is image 3, C is image 4 ... and so on. For simplicity reasons, numbers and punctuation need not be cut out for this tutorial. We will only be using the letters for our demo.

Next, load them into Sprite X and optimise the area around them by clicking on the image close-around gadget. Click on SWAP and click on SAVE ICON (those with only the standard sprite editor may use my converter at the end of this article). Load your icon bank into AMOS from the Direct Mode and type in the following routine:

SCROLL ROUTINE BY SAUSAGE

Screen Open 0,640,32,8,Lowres : Cls 0 Curs Off : Flash Off
Get Icon Palette

'OPEN A DOUBLE LENGTH SCREEN AND 32 HIGH, CLEAR AND SETUP
A\$="A: Move 320,0,80; L X=0; L RA=1; Jump A;"

M\$=M\$+"scrolly test message this can be anything you

M\$=M\$+"like

"N\$="abcdefghijklmnopqrstuvwxyz"

' DEFINE A\$ AS AMAL, M\$ AS THE MESSAGE AND N\$ AS LETTER

' POINTERS

Channel 0 To Screen Offset 0 : Amal 0,A\$

Amal On 0

Screen Display 0,140,-60,320,256

'SET SCREEN POSITION AND AMAL ON_____

Do

SP=0 : C=1

For L=1 To Len(M\$)

REAPET:

PP\$=Mid\$(M\$,L,1) : S=Instr(N\$,PP\$) : If S=0 Then Goto REAPET

Paste Icon SP+320,105,S : SP=SP+32 :

If SP>288 Then Gosub SLEEP : Rem IF THIS AREA IS REACHED,
' THEN THE SECOND HALF OF THE MESSAGE SCREEN IS FULL.

Next L

Gosub QUICKCOPY

Loop

QUICKCOPY: Screen Copy 0,320,136-40,640,136 To 0,0,136-40 :

Cls 0,320,136-40 To 640,136

Amreg(0)=0 : SP=0 : Return

' COPY ONE SIDE OF SCREEN TO THE OTHER AND RESET R0 IN AMAL

SLEEP: If Amreg(0)=1 Then Goto QUICKCOPY

' WAIT FOR AMAL TO DROP 1 INTO R0. THIS MEANS THE SCROLL

' IS AT THE EDGE AND NEEDS TO BE UPDATED IMMEDIATELY.

Goto SLEEP

continued on page 42

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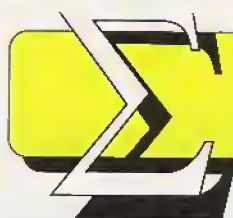
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What is Actually Happening

In Figure 1, we see a normal 320x200 screen and our scroller screen. The first screen is there only for size comparison. This could be used to display a picture or to fly BOBs around. The left half of the screen shows us the word "SCROLLER" which is about to be scrolled off to the left. As it is being scrolled, the program is quickly placing the letters on the right half of the screen.

In Figure 2, the screen simply scrolls under AMAL control to reveal the right half.

In Figure 3, when the scroll comes right to the end, AMAL places the value 1 into R0. This is to say "Hey, I'm at the end, start putting up more letters!". The program quickly copies the right half to the left half and jumps the screen to its original place (X=0). Because we copied one half to the other and jerked the screen back to the start, you cannot tell that the screen has returned because both halves look the same!

Figure 4, everything goes back to the same position as in Figure 1 and the program starts placing letters on the right half again. This routine, dare I say it, is the most perfect scroller that can be written in AMOS.

This is because no matter what the speed you set the scroll to in the AMAL routine, the scroll will be silky smooth, will never jerk (provided there aren't too many large BOBs flying



Figure 1

around) and is uncompiled. Compare this routine to the often ripped off routine on the AMOS Extras disk. This routine uses the DEF SCROLL and SCROLL commands. While it is smooth, any other activity like the presence of a BOB, will upset it causing jerking. It's also placed at the bottom of the screen because it is avoiding the VBL refresh which is always bad at the top of the screen without Double Buffering. This routine may be used in your own demos as long as you credit the author.

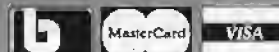
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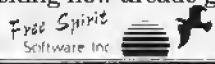
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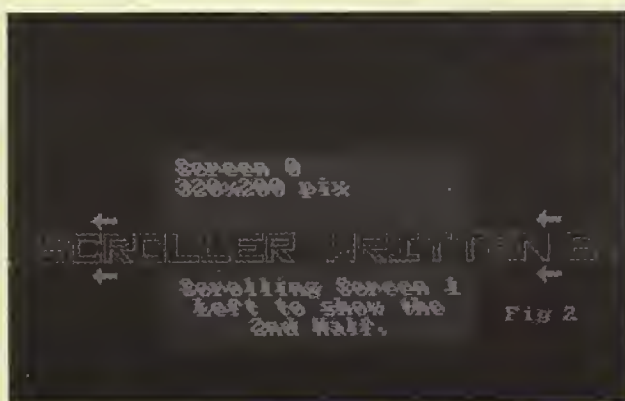


Figure 2

Now to add some other things to our demo. A scroll is bland by itself. How about a bounce to the scroll? Go to the line : A\$="A: Move 320 and type underneath:

```
B$="A: Move 0,2,4; Move 0,2,2; Move 0,4,2; Move 0,12,4; "
B$=B$+"Move 0,-12,4; Move 0,-4,2; Move 0,-2,2; Move 0,-2,4; "
B$=B$+"Move 0,-1,5; Move 0,1,5; Jump A; "
```

Now under our line that says Channel 0 To Screen Offset 0, add the line:

```
Channel 1 to screen display 1 : Amal 1,B$
and change the next line to,
Amal on 0 : Amal on 1
```

We now have a bouncing scroll in around four extra lines without any effort.

The style of bounce can be easily changed as desired.

This Month's Ten Liner

This is just a quick one. Simply move the mouse to avoid the greeblies. Also, do not move onto the orange blocks.

- (1) Load "extras:sprite_600/aliens/alien3.abk";
Load "extras:sprite_600/aliens/alien4.abk",1
- (2) SMALL: Screen Open 0,320,256,32,Lowres : Hide :
Double Buffer : Curs Off : Cls 0 : Flash Off :
Get Sprite Palette : Reserve Zone 50 : For A=1 To 50 :
Ink 5 : X=Rnd(319)+1 : Y=Rnd(255)+1 :
Bar X,Y To X+10,Y+10 : Set Zone A,X,Y To X+10,Y+10 :
Next A
- (3) Bob 0,160,100,1 : A\$="A 0,(12,4)(13,4)(14,4)(15,4); A:
Move XM-X-140,YM-Y,7; Jump A;":
B\$="A 0,(1,4)(2,4)(3,4)(2,4); A:
Move XM-X-140,YM-Y,40; Move Z(320)-X,Z(256)-Y,30; Jump
A;": Channel 0 To Bob 0
: Amal 0,A\$
- (4) Bob 1,0,0,1 : Bob 2,320,0,1 :
Bob 3,0,256,1 : Bob 4,320,256,1 : For C=1 To 4 :
Channel C To Bob C : Amal C,B\$: Next C : Amal On : L=10
- (5) Do
- (6) If Bob Col(0)=-1 Then Dec L : Locate 0,0 : Print L: Bell 1
- (7) If Zone(0,X Bob(0),Y Bob(0))>0 Then Dec L : Locate 0,0 : Print

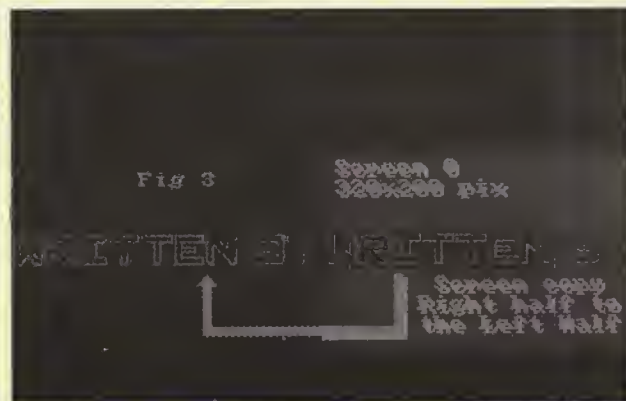


Figure 3

- ```
L : Bell 1
(8) If L<1 Then Amal Off : Boom : Channel 1 To Bob 0 :
Anim 1,"(20,4)(21,4)(22,4)(23,4)(24,4)(25,4)(26,4)(27,4)
(28,4)(29,4)(30,4)": Anim On : Wait Key : Default :
Goto SMALL
(9) Loop
```

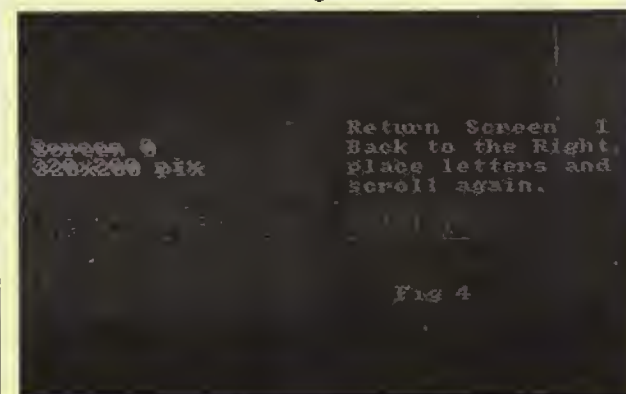
Next month I will be covering Menus, icons and gadgets. And maybe even a little 3D. Hope we see some interesting demos appear on the AMOS scene.

```

' SPRITE IMAGE -> ICON CONVERTER
' BY SAUSAGE

Load Fsel$(" ", "SELECT SPRITE BANK", "FONT TO LOAD")
Screen Open 0,320,200,32,Lowres
Get Sprite Palette
Flash Off : Curs Off : Cls 0 : Pen 2 : Writing 1,2
For B=1 To Peek(Start(2)+1)
Cls 0 Bob 0,0,0,B
Wait 2
Get Icon B,0,0 To 32,32
Wait Vbl
Next B
Save Fsel$(" ", "SAVE ICON BANK", "")
```

Figure 4





# AmigaBasic Graduation Part 3 (Random Disk Files Part I)

by Peter Deane

**Y**ou may remember our address book program from last month. It used a serial file to store the information, and could really only be accessed by starting at the beginning, and working through to the end. By definition, this is what a serial file does.

BASIC allows for another, far more powerful sort of disk file referred to as a random file. With a random file, the entries are made up of a number of records, which can be accessed in any order at all. (Hence the term 'random').

The same constructions 'OPEN' and 'CLOSE' are used on random files, however the method of storing and retrieving data from them is substantially different to serial files. We'll no longer be using 'PRINT#' and 'LINE INPUT#' to work on the files, but will be learning a new pair of commands especially for working with random files, 'GET' and 'PUT'.

I hope you haven't lost your data files from last issue, because what I hope to do is convert your old serial address book file into a random file. I must confess I deleted mine, and had to re-run the address book program again to create one!

Random files have proven to be such a meaty issue that I'm going to have to cover them over two months. This article will cover the preliminaries and storing data away into the disk files. Next month we'll discuss getting the data back and develop a more powerful address book program.

## Planning your data file

Two terms need to be defined before we can go any further, and those are 'record' and 'field'. If you have worked with a database you'll probably be familiar with these terms. A record is one 'big chunk' of information about something. For instance with our address book program, a record is the information about one person (the name, address, postcode, etc) taken as a whole. The record is divided into a number of components called fields, which store specific parts of the overall record, and as you've probably guessed, there is a postcode field in our address book records (among others).

There are distinct disadvantages to random files, and the first is simply the fact that you must limit the amount of storage you are going to give each record. Unlike serial files, where any field simply ended

with a return character and could be as long as you liked, we have to actually define exactly how much storage we are going to give each field in bytes.

When used in practice, this means you have to guess at how long to allow for each field. And the question immediately arises 'What if I get an element of data that doesn't fit into my data structure?' Unfortunately, the answer is you are going to have to truncate it. You can write a conversion program to increase the available storage for a database, but in all, it's probably not worth it for one or two data items.

So before you even start to work on random files, you have to sit down and have a very good think about what you are actually going to be storing, and how much room you need to assign.

Last month we had an address book stored, so let's take a look at the fields we'll need:

Name  
Street Address  
Town/Suburb  
State  
Postcode

Let's also add in two more fields for this month: the STD area code, and a phone number.

Is this all we need to store? Well it may be for the time being, but two or three months down the track I'll bet you can think of something else you might like to include. For this reason, when I plan a random file, I almost always include a dummy field, which we won't be using at the moment, but allows for future expansion.

So how big do the fields need to be? Well, that's part guesswork, and often very difficult to assess without actually getting some information as to the sorts of data you are going to store. This is a typical chicken and egg situation: you need to know about the data you are going to store before you write the program, but you may well not know how big the data are going to be until after the program has been written and in use. Sounds ominous, doesn't it?

You could allow huge field sizes, but that brings us to another disadvantage of random files: the amount of space you allocate for a record is used in the disk file, regardless of whether it's being used to hold information or not. In other words if you were to store my name 'Peter Deane' (11 bytes including the space in between) in a field size of 30 bytes, then you'd need to

add 19 filler bytes to the datum before it gets stored. So for 11 bytes of information, you need 30 on disk to store it. It may not seem like much for one field, but when you consider that all the other fields have to be similarly padded, and then multiply it by the number of records you are going to have stored, it comes to a sizeable amount of 'wasted' disk space.

## So is it all worth it?

The answer is: it depends. If your database is only going to store a limited number of records, then I'd probably suggest that you use a serial file. They are a lot easier to work with. However, the further into the database you get, the longer it takes to access one record. You may not worry about the 5 second delay to access the tenth record of the file, but if you are going to be accessing the fiftieth record, you may have time to make coffee before it gets there. For instance if the records are in alphabetical order, 'Aaron Anderson' is going to be retrieved in seconds, whereas 'Xavier Zanthrus' may take all day. This is especially noticeable if you only have floppy disks.

You can access the hundredth record from a random file in the same time it takes to access the first. Another very distinct advantage of a random file is that it's a lot easier to edit the information stored. The way you do it with a serial file is to read the whole file into an array, change one field, and then save out the whole file again. With a random file, you can alter one field, and only change the bytes necessary.

In all, the advantages do end up outweighing the disadvantages when you have more than about 20 records stored. I think it's about time we started to learn the processes involved. It's difficult if you've never used random files before, but once you have used them in a program or two, you'll wonder what all the fuss was about!

## Field statements

There are two commands you need to issue before you can create a random file. The first is the 'OPEN' command, and the second is the 'FIELD' command. I'll work on it backwards, and deal with 'FIELD' firstly.

The command syntax for FIELD is:  
FIELD #(channel), len1 as string1, len2 as string2, ... lenX as stringX

This is the worst statement in BASIC that I know, because you are limited to 255 bytes for the command. You CAN have multiple field statements for the same file, however that's really confusing, and I won't go into it at this stage.

Let's assign space for our address book. The first thing I usually do is make up a little table that I can refer to while the program's being developed. Have a look at Table 1.

**TABLE 1: (Field guide)**

| Description    | Bytes | Type    | Store | Working String |
|----------------|-------|---------|-------|----------------|
| Name           | 24    | LSET \$ | na\$  | nam\$          |
| Street Address | 40    | LSET \$ | ad\$  | address\$      |
| Town/Suburb    | 24    | LSET \$ | tn\$  | town\$         |
| State          | 4     | LSET \$ | st\$  | state          |
| Postcode       | 6     | LSET \$ | pc\$  | postcode\$     |
| STD area code  | 4     | LSET \$ | ar\$  | std\$          |
| Phone number   | 8     | LSET \$ | ph\$  | phone\$        |
| Dummy          | 18    | LSET \$ | dm\$  | dummy\$        |
| Total          | 128   |         |       |                |

## Numbers and Strings

A few explanations are in order arising from Table 1. The 'Type' column is something I haven't described yet. For our database I have decided that ALL the fields are of the type string. When you are storing fields in a random file, you can use several types of data. Strings are the easiest to work with. You can, however, store numerical data as encoded binary. I think this is a little beyond the scope of this month's article, but you may care to have a look in the AmigaBASIC manual for the entries CVI, CVL, CVS, CVD, MKI\$, MKL\$, MKS\$ and MKD\$, which will ensure total confusion.

In essence, you can only store string data in a random file. Numbers can be converted into strings in two ways.

The easiest method to do this is to store the data into the random file as strings and then use the VAL() command to convert them into numerical format. For all intents and purposes that is all you need.

Note that in BASIC you cannot compare data of different types. If you used these lines:

```
IF a$=b% THEN
PRINT "Correct!"
ELSE
PRINT "Sorry..."
END IF
```

then the error would be 'Type Mismatch' (Error number 13) on the first line.

You use the pair of commands STR\$( ) and VAL( ) for conversion between the two types. Since numerical compares are much faster (and less stringent) than string compares, the best way of writing the above routine would start:

```
IF VAL(a$)=b% THEN
...
```

So VAL(a\$) converts the string into a numerical format, and STR\$(b%) converts a number into a string. When using STR\$( ), you'll find that positive numbers always end up with a space in front of them to allow room for the '-' sign in negative numbers. This is sometimes inconvenient. For instance:

```
b%=20
a$=STR$(b%)
PRINT "The number is ";a$;"
would output:
The number is ' 20'
```

Just be aware of this quirk for the time being, and in later articles we'll explore how to get around it. What IS relevant for random files is that you need to allow for this leading space when storing numerical data into the disk file. You must either get rid of it, or add a byte to the size of the expected field to allow for the leading space. This month we aren't using numerical variables at all, so we can safely ignore it.

## Other considerations

The 'LSET' command will be explained in a moment when we proceed to put some information into our data file.

A brief word about the dummy field is in order. There was a very definite reason why I chose to make it 18 bytes long. Unlike a serial file, where the actual data file can be edited in a text editor, a random file contains no return characters at all. It is one big file made up completely of alphabetic characters. You can use the public domain utility called 'NewZap' to edit it, however. When NewZap displays the data file, it does so in 32 column widths. I wanted to make the random file an even multiple of 32 bytes so that each record would begin on a new line when looked at from NewZap. So I simply added up all the useful field sizes, subtracted it from 128, and put the balance into the dummy field.

This is simply a personal preference of mine, and you don't have to comply with it. However, I find that it makes it easier in the long run because you can tweak your data file with NewZap rather than writing the code to do it.

The rightmost two columns refer to the names of the strings we will use on the data. This may well be confusing, but is simply for convenience. Owing to an interesting quirk of the way random files are handled, and the 255 character limitation on a single line of code, I generally use two strings to work with each field. I refer to the first one as the 'storage string', and this will be used to field the file and to retrieve or store information from it. I use rather small variable names for these strings so the FIELD statement can work within the 255 character limit.

However, if you use the storage string name directly in a program, BASIC often disassociates it from the random file and sets it to a null. If you actually issue commands which will change the value of the storage string, you'll lose it completely. So what I do is copy the storage strings to other strings I refer to as 'working strings', and this averts the problem. You can then modify the working strings to your heart's content and then set them into the random file with a little subroutine. You'll probably be completely confused by now, and so we need to start seeing the theory in action.

## Creating the file

Now we know how big our records are going to be, we can open a file and field it. Note that despite any wrapping that's going to occur, these are two lines of code. One for the OPEN, and one for the FIELD:

```
OPEN "R", #2, path$+"Address.ran", 128
```

Here we open in mode "R" (random), the file Adress.ran (placed in your path\$, which you'll have to change according to your system) with a length of 128 bytes. A random file must be opened with a buffer size equal to the number of bytes in each record.

```
FIELD #2, 24 AS na$, 40 AS ad$,
24 AS tn$, 4 AS st$, 6 AS pc$,
4 AS ar$, 8 AS ph$, 18 AS dm$
```

And the field statement lets BASIC know how big each field is in bytes. This information came straight from Table 1. If you add up all the numbers in the field statement (xx AS ..., yy AS ...) your



total MUST agree with the buffer size given in the OPEN statement, otherwise you'll get an error.

I won't explain the command 'CLOSE' in this article, because it is used in exactly the same way as we used for serial files. When you are done with a file, CLOSE it. Simple!

## PUT-ting it in

It's that time when we have to look at a program, and in fact, I'll write two programs this month. The first will be for those who still have the serial file created from last month's article, and the second, for those who missed the issue, or have lost their files!

There is a subroutine common to both programs: 'drop.out'. This shows how I use the temporary and working strings to put data into the random file. In the next article, there'll be another subroutine called 'pick.in' showing how I get the information back out again.

Drop.out uses the two commands needed to place data into a random file. Firstly, the working strings are LSET into their storage string names, and then with one command (PUT) the data is written to the random file. The syntax for PUT is:

PUT #channel, record

The channel number is what you have opened the file as, and the record number is which record you are writing. If your random file only contains three records, note that you cannot PUT anything above record number four into the file! It must be added sequentially as the file is built. In fact, if you leave out the record number in the PUT command, BASIC will write to the file the very next record after the file was last accessed.

So if you open the file, and PUT to it straightaway without specifying the record number, BASIC would know to store record number one into the random file. This month, I'll be manually keeping track of the record number in the program, but later it may be appropriate to omit the record number. However, beware of using this method because of one of the features of random files: you can overwrite an existing record simply by PUTting that record number on top of the old data. This is where the power of random files comes from, but at the moment it's more a hindrance than help. Next month, when we edit a single record, you'll see that it's this feature that sets random files apart from serials.

Please refer now to Program #1.

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# Program #1: (Conversion of a serial file into a random file)

```

' Converts address.dat into address.ran
' use this only if you have a file address.dat
' in the directory defined in path$

' Change as necessary for your system:
path$="D:\BASIC\Work"

' count of the number of records
record%=0

PRINT
PRINT "Checking for your old file ";path$;"Address.dat"
OPEN "I",#1,path$+"Address.dat",4096

' (If this next line doesn't get printed, we
' couldn't access your address.dat file)
PRINT "Reading in the serial file: "

WHILE NOT EOF(#1)

 ' Increment the record number for the
 ' benefit of drop.out

 record%=record%+1

 PRINT
 PRINT "Record # ";record%
 PRINT
 LINE INPUT #1, nam$
 PRINT "Name : ";nam$
 LINE INPUT #1, address$
 PRINT "Street Address: ";address$
 LINE INPUT #1, town$
 PRINT "Suburb : ";town$
 LINE INPUT #1, state$
 PRINT "State : ";state$
 LINE INPUT #1, postcode$
 PRINT "Post Code : ";postcode$
 PRINT "Please enter the phone number details:"
 PRINT
 INPUT "Area Code ";std$
 INPUT "Phone Number ";phone$

 GOSUB adfile.prep
 GOSUB drop.out
 GOSUB adfile.shut

WEND

' Close the old serial file
CLOSE #1

PRINT
PRINT
PRINT "File has now been converted!!"
PRINT
PRINT "Press Any Key"
WHILE INKEY$=""
WEND
END

'
adfile.prep:
'
OPEN "R",#2,path$+"Address.ran",128
FIELD #2, 24 AS na$, 40 AS ad$, 24 AS tn$, 4 AS st$, 6 AS pc$, 4 AS ar$, 8 AS ph$, 18
AS dm$
RETURN

```

adfile.shut:

CLOSE #2  
RETURN

drop.out:

LSET na\$=nam\$  
LSET ad\$=address\$  
LSET tn\$=town\$  
LSET st\$=state\$  
LSET pc\$=postcode\$  
LSET ar\$=std\$  
LSET ph\$=phone\$  
LSET dm\$=""  
PUT #2, record%  
RETURN

## LSET and RSET

One question you may have is 'How do the fields get set to their correct length?' The answer is part of the beauty of the random file commands LSET and RSET. These automatically know how much room you've assigned for the field from the FIELD statement and will either pad out the strings with spaces, or truncate them to the correct length.

Let's say we have these commands somewhere in a program:

```

OPEN "R",#2,"Fred",10
FIELD #2, 10 AS foo$

```

Then let's have a look at what happens to a few things you are going to put into foo\$. I'll cover this in Table 2. Note that instead of using spaces, I'll use fullstops, so you can see how big the strings end up being. The actual strings, however, after being XSET, do contain spaces, not fullstops! It's just that it's rather tricky to see spaces in print.

Table 2: (Strings when set into random files)

| 10 bytes ONLY allowed for the output string |              |              |
|---------------------------------------------|--------------|--------------|
| Input String                                | LSET output  | RSET output  |
| "1234567890"                                | "1234567890" | "1234567890" |
| "123456789012345"                           | "1234567890" | "6789012345" |
| "12345"                                     | "12345....." | ".....12345" |

So in effect, if you LSET or RSET a string before placing it into the random file for storage, you will always end up with a string that is exactly the number of bytes you've allowed for in the field statement.

If the string is shorter than the field, then it's padded with spaces (LSET places them to the RIGHT of the raw string, and RSET places them to the LEFT). If the string is longer than the field, then it gets truncated. You can think of LSET as left-justifying and (if necessary) padding or truncating the raw string, and the opposite applies to RSET.

RSET is useful at times for numerical data, because it's easier to examine a column of figures if they are right-justified. But for our address book, I've used LSET exclusively.

When prompting the user for input, it's sometimes useful to let them know how many bytes are available for their data. Writing a masked input routine to limit them to a set number of characters is also very useful, and one thing I'll definitely be covering later in the series. But with these programs, if you enter a string which is too long to fit into the random file, it will simply be hacked back to the maximum size without any warning at all!



## Another Program

Notice how I prompted the user for the two extra fields for the telephone number which we didn't store last month? Let's now modify Program #1 so it prompts for EVERY field, for those who haven't got an address.dat file.

If you've already run Program #1, you may care to delete Address.ran before running this program.

See how Program #2 now expects all its input from the keyboard, and not the old data file. Notice, however, that many of the commands are nearly exactly the same. (That is, instead of LINE INPUT #1, it's simply LINE INPUT).

### Program #2: (Creation of a random file)

```
' Creates address.ran
' use this if you have lost the file address.dat

'Change as necessary
Path$="D:\BASIC\Work"
' count of the number of records
record%=0
' iteration check
loop$=""
WHILE UCASE$(loop$)<>"QUIT"

 ' increment the record number for the
 ' benefit of drop.out

 record%=record%+1

 PRINT
 PRINT "Record # ";record%
 PRINT
 PRINT "Name : ";
 LINE INPUT nam$
 PRINT "Street Address: ";
 LINE INPUT address$
 PRINT "Suburb : ";
 LINE INPUT town$
 PRINT "State : ";
 LINE INPUT state$
 PRINT "PostCode : ";
 LINE INPUT postcode$
 PRINT "Area Code : ";
 LINE INPUT std$
 PRINT "Phone Number : ";
 LINE INPUT phone$

 GOSUB adfile.prep
 GOSUB drop.out
 GOSUB adfile.shut

 PRINT
 PRINT
 PRINT "Enter 'QUIT' to Stop or"
 INPUT "Anything else to keep adding ";loop$
WEND

PRINT
PRINT
PRINT "Random file has now been created"
PRINT
PRINT "Press Any Key"
WHILE INKEY$=""
WEND
```

END

adfile.prep:

```
OPEN "R",#2,path$+"Address.ran",128
FIELD #2,24 AS na$,40 AS ad$,24 AS tn$,4 AS st$,6 AS pc$,4 AS ar$,8 AS ph$,18
AS dm$
RETURN
```

adfile.shut:

```
CLOSE #2
RETURN
```

drop.out:

```
LSET na$=nam$
LSET ad$=address$
LSET tn$=town$
LSET st$=state$
LSET pc$=postcode$
LSET ar$=std$
LSET ph$=phone$
LSET dm$=""
PUT #2, record%
RETURN
```

## What have I now got?

In the directory you defined in path\$ (and I hope you remembered to add a trailing slash to this string!), you will now have a file called 'address.ran'. This is a random data file! You may care to use NewZap to have a look at it, or maybe a text editor or the like. Be careful if editing the random file with a text editor, because they'll often destroy it. Each field has to be the correct size, and a text editor will give you the power to add or subtract from the file size, which really throws out a BASIC program that accesses it at a later stage. I'd recommend you load the file into your text editor to look at it, but never use the save command!

If you like, the AmigaDOS 'TYPE' command can be used to output the file to your CLI or Shell window.

Unfortunately, that's where we have to leave it this month, which is going to leave you in suspense, I suppose!

## Next month:

The next issue will complete the discussion of random files for the moment, and show you how to get information back out of the data file. We'll be re-writing the address book program to allow access to the random file, and add a very important feature we hadn't dealt with in the serial file program: editing the entries.

Please read these articles in conjunction with your AmigaBASIC manual that came with your computer. If I should mention a command, I'll generally type it in block capitals, and you can look them up in chapter 8 of the manual to get the full syntax details, and a quick example or two.

I'd like your comments on this series. If you wish to contact me, please write to: Peter Deane, PO Box 13, WARATAH NSW 2298.

If you have a modem, you can call my BBS (Inquestor) on (049) 67-6808. It's now up 24 hours a day. Apologies to those who rang the old number as given in the October issue.

Please keep the feedback rolling in, I hope to make this series a little more interactive, and you are the ones who can help by asking lots of nice juicy questions.

# The C64 Column

by Owen James

## Letters!

Letters have been flooding in lately, so to start the year off let's rip into the mailbag.

## More PD Please!

W. E. Naismith, of Cobram VIC, writes:

"Dear Owen, May I say that I enjoy your column in ACAR (in fact it's just about the only reason, along with the GEOS column, that I buy it any more) and find it a good source of 64 and 128 info. I would like to see more on PD software as there is so much available it is sometimes hard to sort the chaff from the grain. Anyhow, keep up the good work and I look forward to reading your column in future issues."

It seems you're not alone in a want for more PD coverage. From the next issue The C64 Column will feature a regular look at some of the better PD titles available.

## Advertising, GEOS Upgrades and Future Composer

Mike Mahon, of Kondinin WA, writes:

"Dear Owen, Congratulations on keeping the C64 flag flying in ACAR. Let's hope the Amiga steamroller can be contained so as to leave us 64'ers at least five or six pages a month.

"I have quite a string of questions and as no doubt you'll gather from their drift that I'm no computer whiz.

"(1) Can you please advise me where

*Future Composer* can be obtained and its cost?

"(2) What would you recommend as the best word processor program with a spelling check feature? Where can it be obtained?

"(3) I have GEOS V1.2. Is there a big advantage in upgrading to V2?

"(4) What advantage is *geoPublish* over *geoWrite* (I have *Paperclip Publisher*)?

"(5) I have a fairly early model C64 and a 1541 disk drive. I would like to upgrade it as much as is economically feasible (no hard drive though). From ACAR Dec 90 page 18 there is a list of speed up cartridges, *geoRAM* and *RAMLink*. I find this a bit above me. What do you suggest would be the best way to go and in what sequence should the goodies be purchased and from where?

"(6) We run a business in a small country town in WA and could productively use an electronic billboard for advertising. Have you any suggestions if the C64 could be adapted to this?"

*Future Composer* is available now on PD1 (see later in the article for ordering details).

For the best word processor with a spelling check feature, you have three real choices. *GeoWrite* (with *geoSpell*) is a powerful word processor, but unfortunately a little on the slow side. Good spell check facilities and excellent graphic handling. *Pocket Writer 3* is another very capable word processor with a spell check. Thirdly, there is *Word Writer 6*. Check out the full review in ACAR last year.

As to where they can be obtained there is no ready answer I can give you.

Briwall Australia were an excellent company as far as sales and support of C64 and 128 software, but their demise late last year has left a noticeable gap. It would probably be best to contact the Australian distributors of the software (usually either ComputerMate or Dataflow).

GEOS is well worth the upgrade. You get many more features than ever before. Contact ComputerMate for upgrade details.

The advantage in using *geoPublish* is that you have full control over page layout. Multi-column documents are a breeze and it's perfect for those projects that require an out-of-the-ordinary layout. Note that *geoPublish* is NOT a replacement for *geoWrite* - you would still type and add style to your text in *geoPublish*. The thing that really makes *geoPublish* shine over *Paperclip Publisher* is the fact that you can get crisp, clean output by using a laser printer (contact Laser Mode mentioned in previous columns).

Choosing the right upgrade path can be difficult. If you want to get serious with your C64 you'll need more RAM and more speed. *GeoRAM* is an excellent addition if you are a frequent GEOS user, and the Turbo Master CPU is the only general speed enhancing device available. To combine the two, however, you'll need an expansion port adapter that allows two or more cartridges to be used together. These two should be the first step in your upgrade path.

Next on the list is another disk drive. This addition (along with *geoRAM* and the Turbo Master) makes using GEOS and other productivity software an absolute pleasure.

A modem would complete your setup, allowing access to the outside world in the form of bulletin boards and information services such as Telecom's Discovery.

The C64 is more than capable of advertising. I actually own a program called *The Advertiser* which creates large scrolling messages with music. Does anyone know if it's still available? Another option is using some of the Demo Creation software floating around the public domain at the moment (there's



even some on PD1!). One in particular allows you to create your own scrolling message, combine it with your own pictures and lets you select a soundtrack to complete it. Use it to advertise your products or services. Has anyone done something similar with their C64? Write in with details.

## C64 BBS's

P. Maitre, of Box Hill VIC, writes:

"Dear Owen, There is more BBS for the C64/128 than many people would ever have thought: Natasha (06) 258 5585, Night Flight (03) 3126676, Pilbara (091) 852 754, Talisman (059) 444 061. This BBS is private and you will need a sponsor to gain access. Dungeon (03) 434 1281. This BBS is a message base only (for now). ICM - Inter-Comm Melbourne - will open early January 92.

"Most of these BBS run Image BBS software with colour graphics, ANSI and IBM graphics and most of them use a Lt Kernal hard disk ranging from 20 to 80 megabytes.

"A Netcomm 64/128 modem is the only thing you need to start with. It will plug in the user port and in your phone line. The speed is slow but good for beginners. With a better modem, your C64 will connect, up/download at a speed of 2400 (which is great for this little machine!).

"If you buy a new modem you should get some software with it. Netcom gives you *GPterm*, but you will find a lot more communications programs on the BBSs listed above. I used the public domain programs CCgms Elite and MultiTerm. Both have graphics and ASCII emulation. For the more advanced BBS'er I strongly recommend Novaterm V9.2. This shareware program will give you ANSI and IBM graphics at speeds up to 2400 bauds. This program is well documented and for a small fee (\$US20) the author will keep you up to date with changes in the program (I recently received V9.3)."

Thanks for all the info!

## Value for money?

Ross Archer, of Dulwich Hill NSW, writes: "Dear Owen, Your articles in

The ACAR are about the only current Australian written support for the C64. This, however, makes it hard to justify paying \$3.50 for the magazine when there are ones from overseas, notably Commodore Disk User, which comes complete with a disk of good software for Australian \$11.50. I will continue to get ACAR for a few issues to monitor any changes but I doubt it will be any more than that unless it becomes better value to me."

\$3.50 is certainly a lot less than \$11.50! And as for the inclusion of a disk, I currently offer two (more on the way!) for only \$6 each. If you think buying a magazine that's out of date by the time it hits our shores, contains no Australian content at all and costs more than three times the price of The ACAR, is better value for money then that's your decision.

## Sky Travel?

Brian Campbell, of Kyneton VIC, would like to know if anyone has a spare copy of *Sky Travel*. Anyone out there with an original copy to sell, or know of a retailer with a copy, should contact me.

## Help Wanted

Are there any users in the Sydney area with a solid understanding of the C64 that can help out a new user or two? If that sounds like you, drop me a line with your details. If there are any users in other areas interested in helping out fellow C64 users (even for a fee) then also contact me.

## PD Software

The User Software Disk and PD1 are both now available for \$6 each (cheques/money orders made payable to Owen James). The GEOS compilation will be available soon. Watch this space for details.

If you have a tip, trick, question or suggestion then contact me care of The ACAR, PO Box 288, Gladesville 2111. Catch you next month.

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# The Geos Column

By Owen James

**The GEOS Column is back for another year, so let's kick it off with some mail.**

## GEOS 2.0 and the Star NX-1000

Neil Sanders, of Hurstbridge VIC, writes:

"Dear Owen, In the September '91 issue Dennis Connell was asking about using the Star NX 1000's built-in fonts with GEOS 2.0. There is a way around this problem. Although you can't stop GEOS resetting the printer to "Courier", once it has done this you can simply go "Off Line" and choose the font required. When you go back "On Line" it will stay in the chosen font.

"You can do this anytime during printing as often as you wish. Holding down the On/Off Line button will let it print to the end of the current line. It will then go off line and you can re-select the font.

"A handy use for this is to choose Draft mode (all font LEDs off). This gives a very fast print out, and the text is correctly formatted, unlike the GEOS draft mode.

"Don't forget you can also use the Star Embedded Command codes, all the embedded commands for Fonts, Size, Italics and Bold text, work perfectly within GEOS.

"I should probably mention that these tips only work if your text is in "Commodore" font with NLQ spacing, and NLQ selected when you go to print. I can't give you any help with the underlining problem, but hope that the above information will help."

Thanks Neil. I should also remind users that the Star NX-1000 has a panel lock mode. Simply hold down either the Print Pitch, NLQ type style, or both buttons simultaneously as you turn the power on. This will prevent software from overriding your panel selections. There are also many alternative GEOS printer drivers for the NX1000 available (some offer laser quality printing with speed as the trade off).

Keep an eye out on bulletin boards and PD libraries for these, or wait for the forthcoming GEOS compilation disk which will contain a variety of weird and wonderful drivers for various makes of printers. Watch this space for more details.

## RBOOT?

Olav Lehmann, of Woonona NSW, writes:

"Dear Owen, I have read somewhere that there is a shareware update of RBOOT which allows for loading of BASIC and certain machine language programmes from GEOS and then allows for RUN/STOP RESTORE to return to *geoRAM* (i.e. an efficient RBOOT file). This file, and so many other useful GEOS utilities are posted onto Q-Link in the USA.

"The Public Domain and shareware programs you refer to in your column were probably originally down loaded from Q-Link, but how can us poor readers get hold of them?

"Is there any chance that you could post them onto an Australian bulletin board? Or better still, build up a collection of GEOS programs for release as an ACAR GEOS Utility disk.

"Now that I have *geoRAM* and a 1581 disk drive, GEOS has become an absolute pleasure to work with. I'm just waiting for the CMD program, *gateWay*, to arrive so that I can take full advantage of the 1581. Thank you for your continued support of the C64 and GEOS."

I haven't seen the updated version of RBOOT myself, but as soon as I do you'll hear about it.

Most of the PD software you've read about on these pages will be compiled onto a disk for release 'real soon now'. Are there any Australian readers that frequent the American Q-Link? Contact me if you are able to help out with getting the GEOS PD software into Australia.

## Overseas Ordering & GEOS Quirks

H G Benefield, of Bayview NSW, writes:

"Dear Owen, I wrote to you about my *geoProgrammer* problems some time ago and following your advice I have ordered the *geoBASIC* program from RUN magazine in the United States. After sending them the cost of the program and Air Mail delivery, I finally, after a delay of ten weeks, received a reply. I have now waited another eight weeks for my copy of the program.

"I would therefore suggest that anyone ordering from them should use a Credit Card (Mastercard, Visa or American Express). They would not accept my Diners Club card so I had to send them a Bank Draft. This is by way of warning to others. Who knows when I will get delivery.

"I have something queer to report in GEOS which would be as well to warn others about. I have a substantial number of *Word Writer* 128 files which I decided by using *Text Grabber* to convert to GEOS files. I had already used *Text Grabber 64* to transfer *Easy Script* files to GEOS, so I decided to do the swap.

"On my first pass I was successful with two small utility programs so I



decided to convert the lot. Imagine my surprise when testing the result each time I used *geoWrite* to bring them up the computer locked despite the fact that *Text Grabber* indicated that the conversion was successful. I now had some fifty files converted and only three or four were successful.

To cut a long story short, some ten hours later and some heated words, I discovered the problem. I had used my second 1571 drive during the exercise and not only did the computer lock up but on going back to the converted files on the second drive it would not load, indicating a disk error. This put me completely off the track as after turning everything off and starting again there was no sign of a disk error and the programs that loaded okay still loaded up into *geoWrite*. I tried to see where the fault was on the disk using a disk editor with no luck.

"I finally had a good look at the difference between the few files that worked and those that didn't and experimented with the differences. *Text Grabber*, or at least my copy which I received with GEOS 128 V2, will not accept files with the 'tick' and left and right margin options. If these are deleted it works perfectly. I cannot understand this as not only does *Text Grabber* indicate that the conversion is successful but the converted text can be brought up on the screen during the conversion operation. I used RAM as the second drive for these conversions but I do not think this is necessary."

I know that a lot of readers have bought *geoBASIC* from RUN Magazine in the past without problem, so let's hope yours is an isolated incident. I'm presently trying to bring some third party hardware and software into Australia from the US to make available to readers. Watch this space.

## RAM Expansion

Stuart Connor, of Medowie NSW, writes:

"Dear Owen, First let me congratulate you on some fine articles and also to say what a fine magazine you write these for. I have always wanted to get my name in print so I hope you have space

to print this technical tip.

"It is mainly concerned with the C128, but C64 users may be interested in it also. The next tip was taken from RUN Magazine March 1990 issue:

"As a Commodore Service Technician, my curiosity was piqued by stories of the C64's 1764 RAM Expander usage in 128 mode. I plugged the unit into a C128 to discover for myself if it would work. Lo and behold, all RAM expansion-compatible software worked fine with it.

"My next step was to upgrade the 1764's stock 256K of RAM to the 512K offered by the hard-to-find Commodore 1750 RAM Expander. With eight low-profile 16-pin IC sockets and eight 41256-2 RAM chips in the hand, I opened the 1764's case. First, I removed the solder in the 1764's empty circuit holes and soldered in the IC sockets. Next, I plugged the eight RAM chips into the sockets, carefully observing the position of pin 1.

"With its new double capacity RAM in place, my beefed-up 1764 passed all the 1750 diagnostic tests. After many months of use, GEOS 64, 128 and Digital Solution's Pocket Series software still work fine on it. Any C128 owner with a steady hand can do the same to a 1764 - Scott Sumida, KAILUA, HI.

"Going on the above info as a guide and being an Electrical Technician myself, I thought I might investigate the insides of my Commodore 1700 (128k) RAM expander. Upon opening the case I was greeted by a slightly different chip arrangement than Scott was. My 1700's board was fully populated with 16 3764 RAM chips. This only presented the problem of having to purchase more chips and IC sockets in order to upgrade the meager 128K of the 1700 to 512K and the added job of de-soldering all 16 chips in order that I might replace them with 16 41256 chips as recommended by Scott.

"After obtaining the 16 IC sockets and 16 chips I set to de-soldering the old chips and soldering in the sockets. Then it was a simple matter of plugging in the new chips and cutting a special track between two empty pads on the front part of the card (in front of the large processor - it is marked CUT-512K),

this enables the computer software to recognise the extra RAM. Then I ran the diagnostics program (RAMTEST) from the 1700/1750 Demo disk and waited anxiously for about 10 minutes. All was well after this and since then all GEOS and other software has worked fine. I would like to recommend this procedure to anyone with a good soldering hand who may be frustrated with the small amount of stock RAM available in these two very capable machines.

"Keep up the good support work for the C64. Would it be possible in your limited space to print a few C128 hints, tips or programs?"

Thanks for the info, Stuart. As for more C128 support, I'd love to give it. Send in your C128 tips, tricks and info to be included.

That's it for another month. Until next time, keep the letters (especially 'How to ...' type letters like the one above) rolling in. You can reach me care of The ACAR, PO Box 288, Gladesville 2111.

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# Phil Campbell's Entertainment

## Happy New Year!

Yes, folks, it's 1992 already. Christmas has come and gone, and maybe someone loved you enough to slip a brand new Amiga into your Christmas stocking. Or a CDTV? Or even a nice new game? Whatever it was, we're here to help.

Stuck in the game already? Drop us a line. Looking for something new? Start reading. We've got all the newest and best games reviewed in the next fifteen or so pages. If you're a new reader, welcome aboard - and if you're an old regular, welcome back.

Our entertainment section is going to get bigger, brighter and better than ever in 1992, with more screenshots, more colour, and more new releases.

## Barbarian II Out Now

*Barbarian I* continues to keep players enthralled with its classy animation, beautifully scrolling backgrounds, and atmospheric sound effects. And it still looks good today, even though it's almost four years old. Now, Psygnosis bring Hegor grunting and growling into the nineties with *Barbarian II*. Once more, you're up against the malevolence of Necron.

Beginning in the dark forest near the village of Thelston, you must fight your way through a barbaric land, dodging deadly traps and dangerous enemies.

The game features 2,000 frames of sprite animation, 32 colours on screen, parallax scrolling, and six levels of continuous arcade/adventure action.

From Questor, RRP \$69.95.

## Super Space Invaders

Back in 1979, a strange phenomenon overtook the civilised world. The Invad-

ers landed. Pubs and arcades were taken over as the green alien hordes marched their way around the planet. Parents were horrified as kids everywhere fell into the hypnotic grasp of the little green men. And guess what. They're back!

Yep, it's *Super Space Invaders*, a new game featuring all the best features of your old time favourites. Meet level after level of increasingly weird aliens, play on amazing multiway scrolling playfields, duck and weave as waves of aliens sweep in at you from all angles.

There are all the mod-cons you've come to expect as well, like end of level guardians and power-ups to collect as you play. Don't miss the hyperlaser bonus - it'll fry the bad guys to a crisp!

Sounds like real fun, it's available for both C64 and Amiga, and retails for \$39.95 and \$49.95 respectively.

## Electronic Arts at the Right Price

Electronic Arts have just released a line of software they call "The Right Price." And it is!

Amiga titles like *Champions of Krynn*, *Dragonstrike*, *Pool of Radiance*, *F/A-18 Interceptor*, *Populous* and *Powermonger* have all been slashed to sell at \$29.95.

For Commodore 64 users there are titles like *King's Bounty*, *Keys to Maramon*, *DragonStrike*, *Magic Candle* and *Might and Magic I and II*.

My advice? Don't miss a deal like this, particularly on titles like *F/A-18 Interceptor*. At any money, it's still one of the best flight sims ever written.

## ACAR Entertainment Hints Disk

If you haven't got your copy of the ACAR Entertainment Hints Disk yet,

why not? It's crammed full of handy hints and cheats in an easy to access format. To get a copy, send a blank disk, a cheque for \$5.00, and a stamped, self addressed envelope to Phil Campbell, PO Box 23, Maclean NSW 2463.

## Mindscape "Robin Hood" Competition

There are obviously plenty of Robin Hood fans out there!

The response to our November competition was outstanding, and much to my surprise, almost everyone who entered got the right answers to the tricky questions we posed. Well done! Sadly, there were only five copies of the game to give away, and here are the winners:

1. Helen Savy, of 32 Kerrigan St, Fraser ACT 2615
2. John Fraser, of 1 Thoopara Place, Orange, NSW 2800
3. J. Vandenberg, 5 Lovegrove St, Ludmilla NT 0820
4. Linda Fenton, 47 Melba Drive, East Ryde NSW 2113
5. G.A. Hockey, 13 Forest Court, Tura Beach NSW 2540

Congratulations to you all. And now for the official answers:

Richard Greene played the part of Robin Hood in the TV series. We accepted the spelling "Green" because we were feeling kindhearted.

Many other actors played Robin in movies. Most common answers were Errol Flynn, Kevin Costner, Sean Connery and Douglas Fairbanks Jr.

The fat guy, the big guy and the bad guy were Friar Tuck, Little John and the Sheriff of Nottingham respectively - nobody had much trouble with that one!

Question 5 was tricky. Robin hailed from Locksley, though John Fraser points out that early traditions link him with Huntingdon!

The colour of Robin's outfit is Lincoln Green - an impressive number of entries got this one right, though a number said "Sherwood Green." Bah - no such colour.

Finally, the good king was Richard the Lionheart, exiled by his wicked brother John.



## Mindscape "Lotus Turbo Espirit" Competition

### Five Copies to Give Away

*Lotus Turbo Espirit* is the best Amiga racing game I've ever played. And now you've got the chance to win your very own copy! Mindscape are giving away five copies, valued at \$69.95 each.

What do you have to do? Well, sorry to say, this month the competition is going to be tough.

We're looking for the best 500 word story - a fictional blend of action, excitement and adventure based on as many



computer game themes as you can squeeze in.

Sorry, handwritten entries won't be accepted. Keep your story fast, entertaining and funny.

Put your name, address and telephone number at the top of the page, and mail your entry to January Competition, c/o Phil Campbell, PO Box 23, Maclean NSW 2463.

If the standard is suitably high, the best entry will be published in the February edition of ACAR. Yep, it's tough - so get those wordprocessors pumping!

## Amiga HINTS & TIPS

Don't forget to send hints and tips for the Amiga games you've mastered to Phil Campbell at PO Box 23, Maclean NSW 2463. Send them on an Amiga disk with a stamped, self addressed envelope and I'll send the disk back with a complimentary copy of the ACAR hints and tips disk!

### Shadow Dancer

Aaron Sanderson, from Bathurst NSW sent the following tips for *Shadow Dancer*. The first, says Aaron is to pause the game and type "give me infinitys". If successful you should have infinite credits and ninja magic.

The second cheat Aaron discovered works like this. While playing, press X,C,V together and you should go straight to the next round - though this will only work when the "give me infinitys" cheat is activated.

### Supercars and Hard Drivin'

Scott Maxwell of Moorebank NSW

is a bit of a whiz behind the wheel. He offers the following tips for two of the most popular driving games around.

In *Supercars*, there are two ways of cheating. When you're asked to enter your four letter name, either:

1. Enter RICH, which will give you 500 000 pounds to start with rather than the usual 50 000. With this option you can buy any car you want straightaway, along with all the accessories in the garage.

2. Enter ODIE, this sends the user straight to level 2 without having to complete the nine tracks before-hand.

Scott's *Hard Drivin'* hint isn't really a way of cheating - it's just a way to make the qualifying time easier to reach. There are two ways of doing it, says Scott.

Make sure you always use manual gears. Take the speed track and when the speedo hits 140 press 'n' for neutral. When the corners come up the car will not slide in any way and will keep on the road. Don't take it out of neutral as the car will roll for an infinite amount of time and won't stop unless you crash.

The second method is even sneakier. At the start of the race, when the green light is lit, do a complete U-turn and drive back under the bridge. Ignore the 'Wrong Direction' sign.

When you reach the Y shape in the road, turn right and keep on driving until you pass the checkpoint. Stop, turn around, and pass through the checkpoint once again. Drive on until you reach the finish.

### Gods

The mysterious Powerhouse Nick sent these three level codes for *Gods*.

To go straight to level two, enter the code ADV. For level 3, the codes are MAO or E22. And for level 4, just type BLA.RICK DANGEROUS 2.

Also from Powerhouse Nick comes this lovely little code for unlimited lives in *Rick Dangerous 2*. Simply type "Burn in Hell" on the title screen. Makes you wonder about programmers these days?

### Rainbow Islands

Reader Rosemary Lavock had a problem with the spider in *Rainbow Islands*. Here's a solution from Colleen Broadbent, of Kariang NSW. The way to get past the spider, says Colleen, is to stand on the first brick on the right hand side and keep shooting until the spider comes down. As the spider comes back up jump off the back and run under the rainbows. Then when the spider comes down over the rainbows jump up to hit the rainbows. This will be like shooting with a lot of rainbows. Keep going to the left corner where you will be safe as long as you have been to the right hand side first. You can shoot the spider as it comes down.

### Impossible Mission

Jim Fang offers this advice to Jacki Hogansen, who found *Impossible Mission* really WAS impossible.



You're not meant to get out of the last tower, says Jim. With the musical sequences you are meant to find the correct terminal in Elvin's control room that disarms the missile launch codes - and that's the end of the game.

### Labyrinth

Another answer for Jacki who needed help to enter the Goblin Castle. Jesse Ahern, of Davenport Tasmania offers this advice. When you're outside the castle you must get Ludo to call the rocks. Throw these at the goblins until they are all knocked out. Call extra rocks as needed. Now go to the door of

the castle and use the arm of the Firey to get in. If you haven't got the arm or don't know how to get it, you have to get to the hedge maze and call rocks.

Now use the camcorder (from your house at the start of the game) to record them. Now give the camcorder to the Firey in exchange for his leg, arm and head. You can use the leg to cross the bridge if it has collapsed.

Jesse also asks if we would publish a hand drawn map of *Super Wonderboy* if he sent it in. Well, the answer is maybe. We'd prefer *Deluxe Paint* images on disk, which are easier to reproduce and generally neater. If you do send hand drawn pictures, make sure they're in-

credibly neat, drawn in black ink, and not too big. And make sure you keep a copy for yourself. We can't guarantee to return anything.

### Future Wars

Good news for Shane Smart (Nov ACAR). Noel McAskill, of Revesby NSW offers the following advice. Examine machine, examine opening, put paper in opening, operate green button, operate red button, take documents and move quickly to the lighted circle on the floor which is a teleport.

# Entertainment Letters

Entertainment Mailbox  
PO Box 23  
Maclean NSW 2463

Send all your entertainment questions, answers and comments to Phil Campbell at the Entertainment mailbox. Please keep your letters brief and to the point - and related to games.

### Replaying The Action

Dear Phil, I've just been given *Action Replay VI*, so now I can put cheats on my favourite games. Could you tell me if it's possible to put optional cheats on them with this cartridge and, if so, how do you?

I would also like to know if *Test Drive III* has been made for the C64?

Jason Aldridge  
Coffs Harbour, NSW

Ed: Not being a technical person, and not having an *Action Replay* cartridge, and not even having a C-64 at the moment, I can't give you any definite answers, Jason. That's what the manual is for that came with the cartridge. However, I think you've got the

bull by the horns a little - the *Action Replay* doesn't PUT cheats in games, unless you're talking about modifying memory locations to add lives or give infinite time. In this case, you're not so much putting "cheats" into the program as modifying memory locations that have already been defined in the program. To do that, you first have to find them - look for DEC instructions in the program code, or addresses that change when you lose a life. But as I said, it's all in the book. I haven't heard anything about *Test Drive III*.

### Free Tips

Dear Phil, I am starting a C64 Game Help Line, just like the *Adventurer's Realm* free hint sheet service, but aimed at arcade games. If someone needs any hints, send me a stamped self-addressed envelope, and I'll send you what I can on that game. While this service is free, a self-addressed envelope is essential.

"The Cobra"

CJ-RED VENOM

PO Box 362, Hornsby, NSW, 2077

Ed: Thanks, Cobra. But boy, why do you guys pick such corny names?

### No New Elite

Dear Phil, In the November issue of ACAR, Michael Gane asked about *Elite Plus*, and you mentioned a rumour that it was only a PC version of the

Amiga original. Let me settle the issue by quoting from *Strategy Plus Magazine*, Issue 6 (March 1991), where a two page review of *Elite Plus* was published.

"This game is ELITE; the PLUS indicates that the PC version has finally got all the bells and whistles that Atari and Amiga owners have had for a couple of years."

So you were right when you said there will never be an *Amiga Elite Plus*.

Daryl Stenhouse  
Kings Meadows, TAS

Ed: Thanks for the info, Daryl. It's nice to be right for a change!

### Beast Help Wanted

Dear Phil, I have read Hints and Tips, August '91 and know who the demon is in *Shadow of the Beast 2*. It's his companion I am having trouble with as mentioned in Hint 1. I can't find the "companion" so I can't get the password to the Eastern Passage.

Can either you or David Rich help me? By the way, I think the mag is great.

Wesley Logan  
Kingswood Park, NSW

Ed: Hopefully David Rich will be reading this - or somebody else who can help. Stay tuned, Wesley - we're sure to come up with an answer in a future issue.



## More Help Wanted

Dear Phil, I am having trouble with some games, mainly *Mean Streets* and *Police Quest 2*. Could you tell me where I can find any information on these games. Or could you tell me what codes are to be used in these games?

Lastly, when will *Test Drive 3* be out on the Amiga?

Brendan Santospirito

**Ed:** Sorry, Brendan, it's hard to help out without a few more details about where you're actually stuck. Stay tuned to our hints and tips section, and someone may send us some access codes or cheat modes. As for *Test Drive 3*, who knows? I'd personally prefer to see something new, rather than more and more sequels.

## Boring Technical Stuff

Dear Phil, I have enjoyed reading your magazine for a while now, both the C64 and Amiga topics, even though I only had an SX64. I have finally taken the plunge and bought an Amiga 500 Starter Pack. I have a couple of questions.

What is a "Flicker Fixer", how does it work in principle and will it work with my A500?

Secondly, I own an IBM compatible VGA monitor. Will it work with the A500 video output, with or without the Flicker Fixer?

Best wishes for making a good home computer magazine an even better one.

Archie Sun  
Gladesville, NSW

**Ed:** I've included this letter for two reasons. First, to demonstrate the sort of letters we definitely DON'T WANT in the entertainment section. And second, to show you I'm pretty clever anyway. Well, a bit.

A flicker fixer should work beautifully with a VGA monitor. In principle, it works by doubling the number of lines drawn on the screen by drawing every second line on the screen once, then coming back and filling in the gaps. Until recently, most flicker fixers only worked with the Amiga 2000 - now,

though, there are new models that work with the Amiga 500. They're expensive, but good value if you've already got a VGA monitor. Check first that it will actually work with your hardware.

Finally, get this right. This is the Entertainment section. So next time, write to the other end of the magazine!

## Jumping Jackson Bug Report

Dear Phil, On behalf of my son Greg who was one of the lucky winners in the *It Came From The Desert* competition, belated thanks to you, ACAR and Mindscape for the competition and the prize, which we are thoroughly enjoying.

Now, down to business. Recently I received *Jumping Jackson* as a gift and was looking forward to many hours of enjoyable playing - but it was not to be. Using the password (ROCKNROLL) to access Level 5, completing it and going on to Level 6, the following problems occurred.

Firstly, your man can not start without loss (I nearly broke the joystick trying) and if you do get your man started the screen area around the score table becomes unreadable. Thinking that this might be only a rare glitch imagine my horror when I exchanged it for another copy of *Jumping Jackson* at the store of purchase, popped it into my 500 and the same thing happened:

Just to check out that it was not my machine I quickly tried it out on some friends' machines with the same result - it even caused one 500 to blank the screen and need rebooting.

I have not written this to complain but to point out that I am very disappointed in the loss of an excellent game. Infogrames seem to have slipped up this time but I have every confidence that once they become aware of this problem they will fix it up and then I will repurchase *Jumping Jackson* to get the fun I now miss.

Stephen Eames  
Ballarat, VIC

**Ed:** Looks like you've found a genuine bug there, Stephen. Interestingly, I've found similar problems with the Atari ST version. The bad news is, I'm

not too confident that Infogrames will be interested in fixing bugs in a two year old game!

## Hints Disk and Ports of Call

Dear Phil, The ACAR HINTS DISK seems to be pretty popular. How many have you sold now? I'm glad I went halves with a friend in arranging to get a copy. He did all the paper work and I provided the cash (doesn't seem too fair does it?).

Another good thing is the help received from your magazine. Thankyou Andrew Gormley and Maverick for their hints on *Ports of Call*. Andrew was right (sorry Maverick) always try and pick up the rafts, you get bonus status if you succeed.

Steven McKinlay  
Doncaster, VIC

**Ed:** You're right. The Hints Disk has proved pretty popular, though I haven't really kept track of the number we have copied. I'm surprised that you had to go into partnership to get a copy - I thought \$5.00 was pretty reasonable!

The offer is still available to other readers - simply send a disk, a stamped, self addressed envelope, and a cheque for \$5.00 to Phil Campbell, PO BOX 23 Maclean NSW 2463.

It's crammed with all the hints and tips from the last two years, with a nice user friendly interface.

## Even More Help Wanted

Dear Phil, I am stuck in *Battletech*. After going to the inventor's house, he tells me the stuff is in a cave to the southwest. I have searched just about everywhere - SE, SW, NE, etc. Still can't find it. Any clues?

Kevin Newman  
Beverly Hills, NSW

**Ed:** As usual, Kevin, all I can do is say "stay tuned." Someone, somewhere knows the answer, and with luck they'll be kind enough to take the time to write.

HALL OF FAME will appear in the next issue.



MICHAEL SPITERI'S

# Adventurer's Realm

A Happy New Year to all adventurers all over the country, hope many of you are over your hangovers and ready for the siege of adventure and role-playing games that are currently flooding the market.

If you are stuck in any problem, the Realm has many options open to you in your quest for sanity. You can send away for one of the many free hint sheets on offer, or you can write to me here at the Realm with your problem.

## Free Hint Sheets

For the cost of a couple of stamps you can have up to four different hint sheets from the list below. Just enclose a stamped addressed envelope with your choice, and send it to: Free Hint Sheets, 12 Bridle Place, Pakenham, Vic 3810.

Zak McCracken, Maniac Mansion, Indy, Zork I, II, III, Bards Tale I, II, III, Guild of Thieves, Jinxter, Pawn, Fish, Uninvited, DeJa Vu, Hampstead, Hitchhikers Guide, Faery Tale, Borrowed Time, NeverEnding Story, Dracula Pt 2, Hobbit, and Clever Contacts List Sheet.

## Help, Help & more Help or the Smart Adventurers Dept.

Help has been pouring in from all over the nation, so if you were stuck sometime in the last two months, then the solution to your worries could just be here. Many thanks to all those adventurers who donated the following hints and tips.

Game: **DeJa Vu II**

For: Tony Finn and Dale Priem (Dec)  
From: Mark Harris, Bondi Junction.

Help Offered: When playing black-jack, examine the dealer, then show him the faded clipping. After he recognises you, winning shouldn't be a problem! To enter the laundry, operate the ropes on the crate. The hamper makes a good hiding place against thugs. The place to search here is the office. In the Morgue, open the gate, open the freezer door, open door number five, take what's on his toe, then give this to the clerk!

Game: **Hillsfar**

For: C. Wilson (Dec)

From: Mark Harris

Help Offered: Ride to the rocky quarry to find Dalma. Search her body, then visit the NW corner of the Haunted Mansion. Find the ring and return it to Dalma.

Game: **Ultima V**

For: Wayne Phillips (Nov)

From: G. Beaven, Mark Harris, and Andrew Gormly

Help Offered: The word of power to open Covetous is AVIDUS. The word of power to open Hythlothis IGNAVUS. To get the Grapple, go to Empath Abbey and talk to Lord Michael. The fighter at Trinsic gives you the Mantra for honor.

Game: **Legend of Blackcliver**

For: Jenny Argyrous (Nov)

From: G. Beaven, and Mark Harris.

Help Offered: Obtain the skeleton key that is found on level 6 in the Pits of Blackmire, and take 3 to 5000 in gold for Vorn.

Game: **Labyrinth**

For: Jacky Hogansen (Nov)

From: G. Beaven, and Mark Harris.

Help Offered: Drop all nine rocks into the bog, use the leg, and cross the bridge as fast as possible. Save the game at the Goblin's Village. The building doors lead to random locations. Keep trying until

A huge network of clever contacts is also at your service - see the updated list in this issue!

If your problem cannot be solved, it will appear on these pages for all to peruse, and history has shown that a problem does get solved ... eventually!

Actually, you don't have to be stuck to write to the Realm. You might be able to help someone with your handy hints, or your might like to start some gossip, or have a chat. Why, you can even swap adventure games in the Realm!! We cater for all sorts, from those with a Commodore VIC-20, or an Amiga, or even those with (dare I say it) IBM-PC and compats!

The address to write for any adventure related anything is: Adventurer's Realm, 12 Bridle Place, Pakenham, Victoria 3810.

Kamikaze Andy (alias Andy Phang) is the Realm's role playing freak, and he resides in his dungeon to cater for all your RPG queries. His address is: Realm's Dungeon, PO Box 315 Maddington WA 6109.

No matter where you write to, if you anticipate some sort of reply - a stamped self addressed envelope is compulsory.

## The Official Adventurers Realm Hint Books: 1 & 2!

The first Realm hint book is currently available throughout the country at all good newsagents, however supplies are dwindling. For \$9.00 you get hints for over 40 adventure games including Kings Quest III, IV, Police Quest I, II, Space Quest I, II, III, Zak McKracken, Maniac Mansion and the Zorks, to name a few.

The second Realm hint book, titled "Computer Adventure Hints & Tips" will be released shortly. Containing solutions to Kings Quest V, Beyond Zork, Space Quest IV, Larry II & III, Monkey Island, plus many more. Look out for the big dragon on the front cover!

you find one that takes you to the Castle of the Goblin King.

Game: **Eye of the Beholder**

For: Raymond Huntley (Dec)

From: Mark Harris

Help Offered: To get from level two to level three, try the extreme right hand corner. Certain key combinations will remove the blockages.

Game: **Shadowgate**

For: Nick Plowman (Nov)

From: GAE, Mark Harris, D. Iannello, Noel McAskill, and Kamikaze Andy.

Help Offered: The only mirror you need to break is the middle one, which hides a locked door. Freeze the lake to get the key, and don't forget to get your ball back, as you'll need it again once you get through the door.

Game: **Alternate Reality:**

**The Dungeon**

For: Shayne Cooper (Nov)

From: Mark Harris

Help Offered: After wiping out Base Conchise, the game scrolls over the ending. When it has finished, just radio in and you receive 10 bonus attribute points.

Game: **Operation Stealth**

For: Karen Stephenson (Nov)

From: GAE, and Noel McAskill.

Help Offered: Use the box on the

safe and operate it. A little red light indicates the number order for the decoder. So if the box shows a 5 and the red light is on the far right, then 5 is the fourth number. Operate the button to enter the number. Operate the box when finished to turn it off, then take it. The safe should open.

Game: **Dungeon Master**

For: David Heydon (Nov)

From: GAE

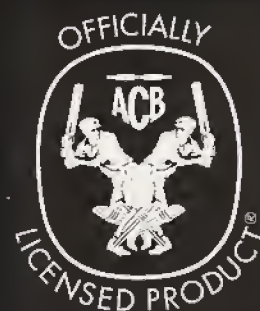
Help Offered: On Tomb of Firestaff (level 7) you need the master key from knight level (12), ruby key from level 11, 4 Ra keys from levels 3, 9, 12 and this level. The turquoise key is hidden under a pile of scrolls on this level. There are four turquoise doors and only one key, so choose wisely. The floating dude could be Lord Chaos. He can only be dealt with once the power gem has been fused to the firestaff. The flames can be dealt with using DESEW or vorpal blade ... run through them while they're smoking. Build a flux cage around Lord Chaos and fuse it. Best place to confront him is in the small room in the corner. Scare him with the war cry. The other floating dude could be the False Grey Lord ... just don't hang around too long after getting the firestaff.

continued on p62



# WORLD SERIES

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 **Pactronics**

# Realm Chit Chat

Mighty Matthew Brady would like to know whether Wizardry: Bane Forge, and Wizardry VI: Bane are worth the money being asked for them.

Matthew would also like some advice on what good games to buy.

**MS:** *Sierra have some hot new releases, as do Infocom/Activision. Can anyone out there in adventureland offer some suggestions for Matthew?*

Edward Chapman writes "A year ago in your column I read of a new version of Lord

*of the Rings* that was apparently being released, and being a fanatical Tolkien fan I kept my eyes peeled for the first available copy. Unfortunately, I am still searching, as I have not been able to find a single C64 copy of it in Australia yet."

**MS:** *I suspect the version you are talking about is the hot RPG Lord of the Rings by Interplay. Copies for the IBM-PC are fairly frequent, however I don't think the C64 version made it over to our shores. An AMIGA version has just been released (see*

*Dungeon - and there may be a review elsewhere in this issue if it arrives before the deadline.) Has anyone seen the C64 version about?*

Edward continues his letter... "I am interested to know what your personal opinion would be concerning whether to stick with my C64 or upgrade to an Amiga 500..."

**MS:** *I'm afraid C64 adventure games are all but gone, and it seems unlikely that there will be any new releases this year. However, if you are on a tight budget, C64 adventure games released in the previous three years are selling at dirt cheap prices (so building a healthy collection shouldn't cost too*

*much). If you want to tackle more complex and advanced adventure games, then an upgrade to an Amiga is your best bet. Amiga 500's are quite cheap now (starting at around \$600 new or \$500 second hand), so you'd better start saving!!*

Allan Mills has some comments on *Leisure Suit Larry V*... "It is my opinion that *Larry 5* was much too easy - it was good, very good, but it only took me one day to finish it. I might have been influenced through experience from playing other Sierra games, as this can give insight to solving puzzles."

**MS:** *What do other Larry luffers think of Larry 5?*

## Adventurer's Realm's Clever Contacts

Ok folks, here is the annual up-to-date listing of all the Realm's clever contacts! Clever contacts are unpaid volunteers, and the following rules must be adhered to when using this service:

1) Always enclose a stamped addressed envelope! Clever contacts should't have to dish out cash for stamps!

2) If you require maps, enclose some donation towards photocopying costs.

3) Unless otherwise specified, never, never, never somehow track down the phone number and telephone a clever contact. Correspondence should be strictly by mail!

A big thank you to all the Clever Contacts for doing a fantastic job!!

### New South Wales

Mark Harris of 158 Birrell St, Bondi Junction. Mark can be contacted if urgently required by phone ... but don't abuse this offer!! Ph (02) 3694920. Mark can offer hints and tips for many, many, many role playing and adventure games for the IBM, C64 and some Amiga.

Juris Graney of 41 Cameron St, Maclean 2463. Help offered: Various games for Amiga & C64.

Robert McGeen of Exmouth Rd, Dapto 2530. Help offered: Sierra games, *Maniac Mansion*, *Zak, Fu-*

*ture Wars*, *Gold Rush*, *Operation Stealth*, *Colonels Bequest*.

David McKinney of 126 Norton St, Leichhardt, 2040. Help offered: *Hobbit*, *ZZZZZ*, *Dracula*, *Bards series*, *Pool of Radiance*, *Ultima 3-4*, *Hitchhikers Guide*, *Dungeon Master*, *Champions of Krynn*, *Curse of Azure Bonds*, *Corporation*, *Kings Quest I*.

Nathan Allan of 11 Maple Ave, Pennant Hills, 2120. Help offered: *Larry 1&2*, *Space Quest 1&2*, *Police Quest 1*, *Faery Tale*.

Andrew Bell of 67 Byamee St, Dapto, 2530. Help offered: *Sierra Games*, *Hillsfar*, *Bards Tale I*, *Millennium 2.2*, *Warhead*, *Battletech*, *Iron Lord*, *Champions of Krynn*, *Codename Iceman*, *Heroes Quest*.

Shayne Cooper of 43 Raye St, Tollard, Wagga Wagga, 2650. Help offered: Hints and maps for *Alternate Reality: The Dungeon*.

Gus Wrethman of 31 Anderson Street, Mordial, NSW 2223. Help offered: *Bards Tale 1,2,3*, *Dungeon Master*, *Chaos Strikes Back*, *Might and Magic I,II*, *Eye of the Beholder*, *Dragon Wars*, *Alternate Reality (city and dungeon)*, *Phantasia III*, *Deja Vu*, *Pirates*, *Tass Times*, *Lemmings*, and parts of *Legend of Faerghail*.

Peter Georges of 34 Arundal Park Drive, St Clair, 2759. Help offered: Has a collection of hints and tips printed in almost every magazine

over the last five years (Amiga, C64, ST).

Suzanne Parkes of 1 Ida Place, Blacktown, 2148. Help offered: *Asylum*, *Adventureland*, *Find Daryl*, *Giants Gold*, *Hitchhikers Guide*, *Irish Adventure*, *Jinxter*, *King Solomons Mines*, *Lucifers Realm*, *Magicians Ball*, *Pilgrim*, *Persesus and Andromeda*, *Pirate Adventure*, *Subsunk*, *Secret Mission*, *Pawn*, *Boggit*, *Voodoo Castle*, *Lost City*, *Winnie the Pooh*, *Zork 1,2,3*.

Andrew Hansen of 4 Stevens St, Pennant Hills, 2120. Help offered: *Bards series*, *Ultima I, III, IV*, *Zork 1 & 2*.

Anthony Stubbs of 66 Hoskins Street, Nyngan 2825. Help offered: *Captive*, *Pools of Radiance*, *Azure Bonds*, *Silver Blades*, *Champions of Krynn*, *Kings Quest*, *Bloodwyche*, *Dracula Pt3*, *Curse of Sherwood*, *Wolfman Pt1*, *Labyrinth*, *Bards Tale III*, *Hitchhikers Guide*.

S. Rawlings of 6 Balder St, Doonside, 2767. Help offered: *Bastow Manor*, *Drak*, *Curse of the Mad Mummy*.

Dale Priem of P.O.Box 43, Jannali, 2226. Help offered: *Space Quest 1,2,3*, *Larry 1*, *Zak McKracken*, *Hitchhikers Guide*.

G. Beaven of P.O.Box 254, Wyong, 2259. Help offered: C64 - *Last Ninja*, *Might and Magic*, *Ultima*

*5, Labyrinth*, *Head Over Heels*. Amiga - *Eye of the Beholder*.

Ryan Tan of 21 Albion St, Concord, 2127. Help offered: Most games!

Y. Chan of 4/91 Drumalbyn Road, Bellevue Hill, 2023. Help offered: *Bloodwych*.

David Marjanovic of P.O. Box 342, Revesby, 2212. Help offered: *Space Quest I,II*, *Larry I,II*, *Shadowgate*, *Deja Vu*, *Zak*, *Arazok's Tomb*, *Pawn*, *Deja Vu II*, *Guild of Thieves*, *Manhunter New York*, and *Leather Goddesses*.

### Victoria

Mick and Meredith Blackmore of P.O.Box 1356, Swan Hill, 3585. Help offered: *Maniac Mansion*, *Castle of Terror*, *Lost City*, *Oasis of Shalimar*.

Steven Fochi of 40 Dover Street, Albanvale 3021. Help offered: *Moebius (+maps)*, and *Leather Goddesses*.

Dorothy Millard of 12 Venetian Court, Croydon, 3136. Help offered: Almost every adventure game for the C64.

Scott Pitcher of 13/176 Rathcoun Rd, Reservoir, 3073. Help offered: All Scott Adams adventure games.

Stefan Lamont of 209 Landsborough St, Ballarat North, 3350. Help offered: *Kings Quest 1,2,3*, *Leisure Suit Larry 1*.



Michael Jones c/o Vision BBS BBS (03) 569 4442 VOICE (03) 563 5125.

Martin McLaren of 39 James Crescent, Rosanna, 3084. Help offered: *Pool of Radiance*, and *Bards Tale*.

Stuart George of 66 Sharon Rd, Springvale, 3171. Help offered: *Pool of Radiance*, *Zak McKracken*, *Bards Tale 1-3*, *Wonderland*, *Fish*, *King Solomons Mines*, *Sorcerers Get All The Girls*, *Police Quest I, II*, *Space Quest I*, *Larry I*, and *Gold Rush*.

Michael Walsh of P.O.Box 136, Horsham, 3400. Help offered: *Zork 1, 2, 3*, *Stationfall*, *Planetfall*, *Starcross*, *Lurking Horror*, *ZZZZZ*, *Rigels Revenge*, *Bastow Manor*, *Adventureland*, *Pirate Adventure*, *Secret Mission*, *Pool of Radiance*, *Azure Bonds*, *Silver Blades*, *Hulk*, *Spiderman*, and *Dracula*.

#### South Australia

David Lear of 7 Glenalvon Drive, Flagstaff Hill, 5159. Help offered: *Boggit*, *Never Ending Story*, *Dracula*, *Eureka Prehistoric*, *Subsunk*, *Mindshadow*, *Wizard of Oz*, and *Zork II*.

David Sark of 54 Madgalene Terrace, St Mary's, 5043. Help offered: *Larry II, III*, *Operation Stealth*, *Codename Iceman*, *Shadow of the Beast II*, *Loom*, *Neuromancer*, *Pool of Radiance*, *Heroes Quest*, *Kings Quest IV*.

David Stacey of 3 Tigress Drive, Hallett Cove, 5158. Help offered: Willing to swap hints, tips and tricks, for adventure, arcade or virtually anything.

Paul Andrews of 10 Sovereign

St, Hallett Cove, 5158. Help offered: *Bastow Manor*, *Island of Spies*, *Cavern Adventure*, *Temple Curse*, *Murder of the Waterfront*.

David Stacey of 3 Tigress Drive, Hallett Cove, 5158. Help offered: Maps for *Bards Tale 2, 3*, *Pool of Radiance*, as well as interesting hints and tips. Hints and tips for *The Story of the United Seas*, and is willing to give copies to those who write to him with a stamped addressed envelope. (+ Heaps of other games, too many to mention).

#### Queensland

Scott Logan of 9 Colington St, Mansfield, Brisbane 4122. Help offered: *Pool of Radiance*, *Zak McKracken*, *Temple Curse*, *Last Planet*, *Island of Spies*, *Adventureland*, *Azure Bonds*, *Corruption*.

Adam Breen of P.O.Box 1577, Toowong, Brisbane 4066. Help offered:

*Bards Tale I, II*, *Ultima 4*, *Champions of Krynn*, *Hitchhikers Guide*, *Larry I*, *Zork I, II*, *Millennium*, *Dungeon Master*, and *Leather Goddesses*.

Derek R. Monz of 12 Noonan St, Heatley, 4814. Help offered: *Larry III*, *Elite*, and *Millennium 2.2*.

Brendan Burns of 8 Nelson St, Ormiston, 4160. Help offered: *Lord of the Rings*, *Hobbit*, *Zork 2, 3*, *Wishbringer*, *Kings Quest III*, *Deja Vu*, *Dracula*, and *Hitchhikers Guide*.

Brad Roberts of 43 Olearia St, Everton Park, 4053. Help offered: *Bards Tale III*, *Chrono Quest*, *Hulk*, *Zorks*, *Infidel*, *Deadline*, *Starcross*, *Rigels Revenge*, *Asylum*, *Dallas Quest*, *Mindshow (?)*, *Uninvited*.

#### Australian Capital Territory

Alex Stivala of 6 Schey Place, Spence 2615. Help offered: *Trinity*, *Hitchhikers Guide*, *Hobbit*, *Castle of Terror*, *Maniac Mansion*, *Lords of Time*, *King Solomons Mines*.

Kathy Kupresak of 44 Noarlunga Crescent, Bonython, 2905. Help offered: *Ultima III, IV*, *Bards Tale I, II*, *Times of Lore*, *Leisure Suit Larry*, *Zak McKracken*, *Leather Goddesses*, *Wishbringer*, *Legend of the Sword*, *Kings Quest I*.

Allan Mills of 36 Pickworth St, Holt, 2615. Help offered: *Maniac Mansion*, *Ultima 1, 2*, *Neuromancer*, *Space Quest 1-4*, *Leather Goddesses*, *Monkey Island*, *Larry 3 and 5*, *Pool of Radiance*, *Azure Bonds*, *Kings*

*Quest V*.

#### Western Australia

Mitchell Rashbrook of 34 Conidae Drive, Heathridge, 6027. Help offered: Many Amiga and C64 disk adventures.

Felicia Holmes of 23 Parmelia Way, Craiglee, 6025. Help offered: *Champions of Krynn*, *Death Knights of Krynn*, *Heroes of the Lance*, *Zak McKracken*, *Faery Tale*, *Kings Quest II, III*, *Police Quest I, II*, *Space Quest III*, *Quest for Glory I, II*.

Andrew Phang of P.O.Box 315, Maddington 6109. Help offered: Most adventure and roleplaying games.

Jozsef Toth of 11/8 Gamett Place, Balga, 6061. Help offered: *It Came From The Desert*, and *Lords of Time*.

Turrican of 20 Braden Way, Marmien, 6020. Help offered: *Police Quest*, *Indy*, *Treasure Island*, *Dizzy*.

Darren of 20 Crufts Way, Canning Vale, 6155. Help offered: *Operation Stealth*, *Pool of Radiance*, *Champions of Krynn*, *Dungeon Master*, *Bloodwych*, *Bards Tale I, II*, *Millenium*, *Phantasia I, III*, *Faery Tale*, *Knight Orc*, *Jinxter*, *Shadowgate*, *Kings Quest I, III*, *Larry I, II*.

Bruce Gilbert of 88 Woodward St, Marangaroo, 6064. Help offered: *Larry I, III*, *Shadow of the Beast I, II*, *Deja Vu*, *Dungeonmaster (+ maps)*, *It Came From The Desert*, *Ghostbusters II*, *Operation Stealth*, *Police Quest II*, *Heroes Quest*, *Mean Streets*, *F19 Stealth Fighter*, *Immortal*, *Dragons Lair*, *Kings Quest 1, 3*, *Space Quest 1, 2*, *Uninvited*, *Shadowgate*, *Dreamzone*, *Zak McKracken*.



## The Dungeon by Kamikaze Andy

A very happy new year to all adventurers and RPGers Down Under! 1992 is definitely THE critical year in determining the future directions of computer entertainment. Twelve months from now, CD adventures and RPGs will occupy as much space on software shelves as current floppy based products. Let's hope that a majority of these exciting games will appear on

CDTV, and not only CD-ROM or CDI!

Lucasfilm's *Indiana Jones And The Fate Of Atlantis* is one title due for CDTV conversion, and the US company plans to

put upgraded versions of previous adventures like *Maniac Mansion* and *Zak McKracken* onto one CDTV disc.

There will be twice as many adventures released by George Lucas' boys in 1992, and Amiga versions of many are on the cards. The most exciting of Lucasfilm's 1992 products is its conversion of *Star Wars* into a space combat/flight simulation type of

game, in the vein of *Wing Commander*.

Whether *Star Wars* makes it to either Amiga or CDTV remains to be seen.

It looks like Mediagenic's *Battletech II* won't be coming out for Amiga despite many rumours in the past. The troubled company has filed for bankruptcy protection (again!), and has also lost the *Battletech* license from FASA. SSI is tipped to pick up the *Battletech* line from Mediagenic, and it will take a while before any new *Battletech* products are released.

Now that Interplay has finally got its Amiga version of *Lord Of The Rings* out the door,

the sequel should materialise sometime in 1992. *The Two Towers* pits you against Lord Sauron once more, but this time you face the threat of the evil wizard Saruman as well. Using a similar graphical style to the original, but with an improved automapping and point-and-click interface, *The Two Towers* should be an essential purchase for any LOTR fan.

Interplay won't be releasing any sequels to *Neuromancer*, but a follow up to their big hit *Castles* is on the boards. Amiga owners who have just started to play the original will be glad to know that a tougher *Castles* Campaign Disk will soon be out.

Some quick Sierra/Dynamix news: As predicted a couple of months ago, *The Adventures of Willy Beamish* has become a massive hit with the software public. A sequel to this innovative adventure will be out by Christmas.

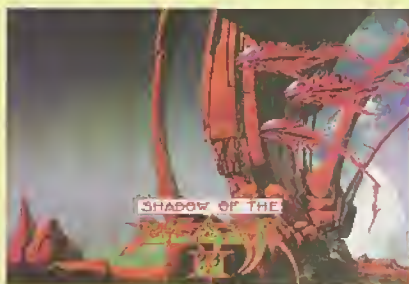
Also due this time next year is the sequel to the recently released *Heart Of China*. Continue experiencing thrills and spills as Captain Jake Masters, this time in deep and dark Africa. The sequel to *Rise Of The Dragon* should be out a few months before then, and feature some tougher puzzles than the predecessor.

Legend Entertainment's *Spellcasting 201* (yet another sequel, this time to *Spellcasting 101*) may or may not appear on the Amiga. The guys at Legend are still unsure about the response from the Amiga adventuring public, and whether this and any other future Legend games will turn up on Commodore's 16-bit baby depends on sales figures.

The long awaited *Captive II* has been

delayed for a while, but now that *Knightmare* is out, I guess *Captive* fans wouldn't really mind the wait. Other UK news include a possible entry into the RPG market by established adventure company Magnetic Scrolls.

Don't worry, there will be one or two more Magnetic Scrolls products using the "Magnetic Windows" system developed in *Wonderland*.



Kellyn Beck's *Detectron* game (covered some Dungeons ago) has evolved in name to "Free DC!" and will appear on Amiga floppy as well as CDTV format. The graphics are very good indeed, and since "Free DC!" is the first of a range of games in the "Avery Zedd Detectron Series", sequels galore should subsequently flood the shelves.

Finally, some Origin snippets: *Knights of Legend* has finally shipped (though the end product, in all honesty, is hardly worth the wait for this RPG). *Wing Commander II* and *Strike Commander* will not appear on Amiga at all (some argued that Amiga 3000s could handle it, but the market would then be extremely limited), and it also appears that *Ultima Underworlds* (great interface, lousy plot) won't be making an Amiga debut. If you're interested, these three games take up 20, 15, and 12 Megs of disk space respectively.

Imagine how many floppies that adds up to!

## Problems, Problems & more Problems or the Troubled Adventurers Dept.

The following adventurers are in desperate need of help and assistance. If you can help out, do so as soon as possible! (The first solutions received should appear in the March issue).

Clever Contact Allan Miles is not feeling so clever this month as he battles his way through *Manhunter*. He cannot get far in the second day! He can trail all suspects, get through the park, and nightclub (for ID card), but the museum is causing him to lose a lot of hair (MS: Try using the key from Osbourne's Apartment). Then, in *Conquest of Camelot*, is there an easy way to defeat the cobras in the desert?

Andrew Gormly from Walkerville in SA is an *Ultima* man. *Ultima V*, actually.

He asks one simple question: Is the Glass Sword necessary for the completion of the game? The main reason Andrew asks the question is because he, errr,

accidentally broke it in combat! Tsk, Tsk. Sleep easy Andrew, the Glass Sword is not necessary for completion of the game, in fact, it is just a weapon. (Hint came in just as this article was going to print ... courtesy of Mark Harris of Bondi Junction).

Heath Kirby-Miller of Stuart Hill in country Victoria is stuck in a few oldies that the Realm has never heard of. Still, someone out there must have heard of *Runaway*.

Problems Heath is facing here are an unobtainable bottle of acid (all attempts so far lead to an acid attack), and a ferocious fish which is preventing Heath from obtaining a silver key!

The next unknown game is the *Grannore Diamond Affair* ... trying to complete more than 35% is the problem here!

In the game *Kron*, Heath has made no progress at all!! The Realm has heard of *Astrodus*

*Affair*, but hints are next to none, and any hints are just what Heath is after!

The Realm also attracts the occasional IBM-PC user. Lou Sartori of Horsham in Victoria is stuck in *The Dark Heart of Uukrul* (by Broderbund). Lou cannot seem to find three petrified hearts. He has found hearts in poisonous gas, a prison cell, depths warped by evil places, in the hordes at Heart hall, and in the stronghold where the dark one sits. Well, Lou is obviously not contented with the usual European vacations. So, have a heart for Lou and help him with his petrified hearts!

D. Iannello of Who Knows Where would like to know if anyone has worked out a way of invoking a cheat mode in the game *Empire*.

Meanwhile, hints for *Empire* exist elsewhere in the Realm. The Realm is usually good with solving old Sierra game problems, however one has slipped through that requires some added attention.

Mighty Matthew Brady asks "In *Kings Quest II*, how does one get the shop to open." Meanwhile, could someone please write to Kane Lavender of Carroll House, Chevalier College, Moss Vale Road, Bowral NSW 2576 with some general hints and tips for *Kings Quest II*.

Selim Ramis of Mareeba in

Qld is having horrible problems with *Labyrinth*. In fact, the problems were so horrible that he didn't mention them! Please send in your problems Selim. Meanwhile, can anyone send in a couple (just one or two...not more!) to get Selim rolling along.

Martin Witchard of Bathurst in NSW writes... "I'm going spare trying to finish (and don't laugh), the 2nd level of *Cadaver!!* "Eh, we won't laugh at your attempts (snigger) to solve (chuckle) *Cadaver* (Ho! Ho! Ho!). Martin has solved 96% of the level but cannot get into the one room that is the key to ending it! He also asks if the ante room to the throne room has any significance? Please help, before we all die laughing (ha ho hee hee ha!!)

Ann Wilson of Childers in hot sunny Qld cannot blame sun stroke for her current problems. Ann can only get as far as the wood elf in the game *Journey*. (Late entry ... Mark Harris offers the following ... get advice, examine fire and elves, follow elves, examine fire and elves, cast rain spell, scout, get advice ... contact Clever Contact Mark for additional help).

Mark Healy would like some help in the *Spirit of Excalibur*. Mark has reached the fourth episode but has yet to meet the Brown Knight.



# Pegasus

*I am Pegasus, my name means horse... if you can remember when that one was top of the music charts, then you're probably too old to cope with a game like this! Juris Graney stretches his youthful reflexes to file this report ... Pegasus.*

**L**et me tell you a story. It happened many millennia ago on Earth when evil triumphed and good was banished to faraway places on the globe.

After many years of fierce fighting, the five planes of existence were corrupted by Satan. He wasted no time in filling them with his own creatures, foul abominations of nature. It seemed that nothing would be able to ever regain and save the ancient worlds.

Then, when it seemed that the world was in Satan's possession, Chan the Sorcerer dreamed of a Winged Horse, guided by a brave warrior, travelling across the four planes and reaching Hell, then going on to battle through Hell and defeat Satan himself.

Perseus, a young and battle fresh soldier, has the same dream. And as fate would have it, he's riding the winged horse. Perseus travels for many weeks to reach the castle of Chan. Now he must

muster all his strength and courage to fight against the most feared person in this world, and stop the world from falling into the grasp of Satan.

When you play *Pegasus*, you will take part in two very different games - one on Pegasus, the flying horse, the second with Perseus on foot. They both play differently, and different tactics will be needed to complete each.

There are five worlds, with five running sections and five flying sections, making a total of fifty levels. The five worlds are Swamp, Ice, Desert, War and finally Hell. As usual at the end of ten levels you have to beat an end of level guardian, which will require some substantial battling.

In the flying sections crystals left by killing the evil dudes are used to increase the power of your weapon. There are eight different weapons you can have. They start off at the standard fire and end up on the Eagle Outriders where

two outriders protect you from harm. When 40 crystals are collected you are given an extra life which is handy in the later levels.

In the running sections, Perseus armed with a lance must traverse great ravines, climb unclimbable mountains and still kill the bad dudes. There are basically two things that you can pick up - Crystals which are used in the same way as in the flying section, and keys. Keys are used to open some doors on these sections.

*Pegasus* is an excellent game which uses variations in the levels to attract the player's attention. The flying sections are brilliantly animated. The backdrops of lightning and clouds moving rapidly over mountains are excellent. The bobs are beautifully drawn, and the music is very good.

It is very addictive and hard to put down. Once you get started, you can't stop. Another good feature is that at the end of the ten levels you receive a password for access to the next section. The screen layout is good, with plenty of space devoted to the game graphics and less to fancy borders. The score and energy are shown in a small area on the bottom of the screen. As usual the team from Gremlin have come up with the goods.

#### Ratings:

|           |     |
|-----------|-----|
| Graphics: | 87% |
| Sound/FX: | 80% |
| Gameplay: | 90% |
| Overall:  | 88% |

Distributed by:

**Mindscape**

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# Pre - Plays

This month we've been swamped with pre-release demo disks from a number of publishers. Sure, they're not quite finished - but we thought you'd like to see them anyway. So sit back and enjoy the first in an occasional ACAR series, as we check out the very latest games.

Questor

## Leander

Leander is an arcade-quality platform adventure game, with a host of technical features. There are 22 levels spread over three worlds, there's 50 frame per second animation, there are over 100 nasty creatures, some made from sprites over 255 pixels square - more than 1319862 bytes of graphics data devoted to the creatures alone. The main character has 70 animation frames, and moves with charm and grace.



## Golden Eagle

Mindscape

The night is dark and stormy. A castle is silhouetted in the background. Suddenly, a whirring sound announces the arrival of a strange craft - a cylindrical spaceship, hovering just above the ground. It lands, and a crew of black-clad warriors dash towards the castle. That's the mysterious opening to Loricel's *Golden Eagle*, a graphical adventure game set in a strange world controlled by a band of Neo-Nazis under the control of the evil sorcerer Nahmur.

Their aim - to steal the fabulous Golden Eagle, a mysterious statue which radiates a strange form of energy. And after a pitched battle, they succeed. It's up to you to win it back.

Presentation of the game is spectacular, with beautiful backdrops and digitised action sequences. Action is joystick controlled, with objects taken, dropped and used by pressing the stick in their direction and pressing the fire button. These features were not available in the demo.

Overall, the atmosphere of the game is sensational. Watch out for a full review as soon as we get our hands on it!



Something sinister is landing...

## Microprose Golf

Microprose

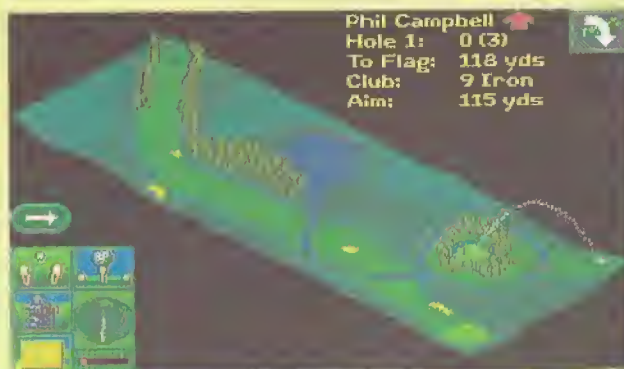
When Microprose talks, everyone else sits up and listens. And so they should. When it comes to simulation software, this is one company that's definitely got the runs on the board. Which means *Microprose Golf* is sure to make a splash.

Come to think of it, it makes a very nice splash. I've heard it often enough - the water trap on the first hole. It makes some good "whooshing" noises as well, and a great "rattle-rattle-plop" as the ball finally drops in the hole. These, however, will not be remembered as the major features of the game.

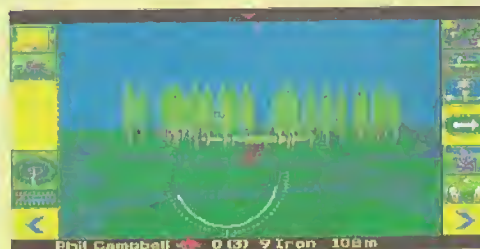
How about the vector generated contours on the course that guarantee every bounce will be unique? Or the fact that you have to adjust your feet before you play a shot - just like in real golf? Or the fact that you can place your tee-shot anywhere between the markers, and raise or lower the ball on the fly by determining how far into the ground you push your tee? Yes, finickity little details - but that's what makes Microprose great!

In play the game is fun, though I haven't really mastered the swing-o-meter yet. It's one of those click on the upswing, click on the downswing gadgets that require incredible timing and reflexes, but without more instructions I'm really just swinging merrily in the dark. Just like I do in real golf.

There are twelve game types, including strokeplay, matchplay, bestball and skins options for one to four human players, with six challenging courses. Distributed by Questor, *Microprose Golf* has a recommended retail price of \$79.95.



Here's the first hole - notice the trajectory my ball will take if I play a perfect shot. (Keep dreaming!)



The view ahead, with polygon based fairway.



# Knights of the sky

## Questor

My engine sputters into life on a cold winter's morning. My leather jacket and flying cap are scant protection in the open cockpit of my biplane - but there's a war on, and fly I must. The engine sputters into life, and I trundle forward along the runway. Picking up speed, the wire and fabric frame finally lifts of the ground - the miracle of flight.

This is *Knights of the Sky*, a game that's been around on the PC for a while. And the Amiga version is very welcome. There's an atmospheric opening sequence, featuring a flickering black and white movie screen - and then the action begins. It's a game very much in the style of my old favourite, *Wings*, with much wider scope. You can choose between a number of planes, and you can fly from a wide range of bases on a variety of missions. Details are still sketchy, as I didn't have a manual. In flight, the game's a lot of fun - animation is fast and smooth, the planes are responsive, and there are a lot less dials and gauges to worry about than you'll find in the latest F-19. Good fun, and well worth watching for. Recommended retail price will be \$89.95.



Bandits at 2 o'clock!

## Battle Isle

### Questor

Flex-Map style war games are not my cup of tea. In fact, I can honestly say I have never had the patience to keep playing one for more than five or ten minutes at the most. Sorry, but that's the way it is. Even so, I couldn't help but be impressed with *Battle Isle*. It's the slickest example of its genre I've ever seen. The screen is split between the two opponents, who take turns to plan and execute their moves. The scale is small - each tank and weapon is visible around your base station. Landscapes are beautifully depicted, with great depth and shading - at first glance you don't even notice the hex-map formation. The sound track on the demo version is great too - just right to stir up the old adrenalin while you plot your devious moves.



Baby Jo ... shucks, aint he cute?

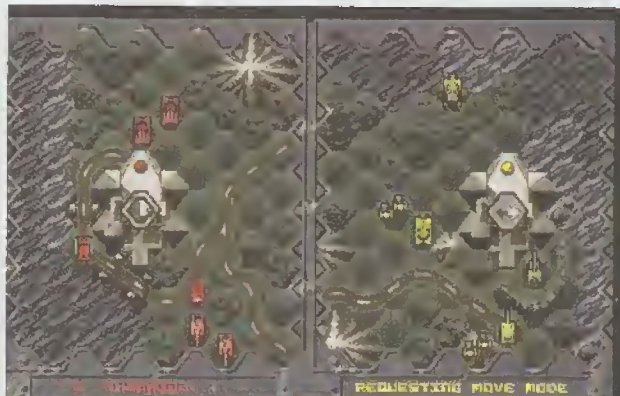
### Mindscape

Here's another cutsie-pie game that's cuter than most. Baby Jo is lost in the countryside, far away from the city and his mum. It's a good thing he's resourceful - he knows how to make good use of all the bits and pieces he'll find on the way home. There are all sorts of obstacles to avoid - like fires, rolling logs and nasty bees. But there are some helpful Super Nappies, which give powers like maximum speed, and high powered jumps. Then there's a protection cape that makes him invulnerable, and deadly rattles that Jo can throw at his enemies.

Gameplay in the demo version was simple and smooth - jumping and hopping with the joystick requiring split second timing. Graphics are bright and colourful, and the soundtrack is suitably inane. This is potentially an addictive little game, with a touch of cartoonish humour - check out the look on young Jo's face when he lands on the fire!



Lesson number 1 - Keep away from the fire. It's HOT!



Take turns moving and thinking while you admire these superb graphics.



# Magic Pockets

Games by the fabulous Bitmap Brothers are always worth playing. And this one is no exception. Join Juris Graney as he takes a dig into their latest effort ... *Magic Pockets*.



The Bitmap Kid was pretty much like every other kid on the block until the day when a strange old man gave him his pair of Mystical Trousers. The Mystical Trousers bestowed upon the wearer the power of Magic Pockets - and when Kid's got bottomless pockets in which to keep his toys and boy's things, he's so cool it hurts.

But then one day something bad happened. Kid couldn't find his best toys. They had disappeared into the bottomless depths of his pockets! Kid was not happy, but didn't show it because he was so cool. He simply put his hand into his pocket, pulled out a black hole and jumped into Pocketland.

The four corners of Pocketland are very different to each other but they share many secrets - there are the Caves, the Mountains, the Jungle, and the Lakes. In each of these levels you can find Bubble Gum Machines which let you blow enormous bubbles to fly on, and TV sets which let you see where all the bad guys are and make adjustments before you arrive there. Then there are items such as Cherry drink which is worth points, Sweet machines which are found in secret rooms and passage ways and Road drills which when activated kill the bad guys around you and turn them into power ups. There are also

Space hoppers and ice cubes.

Another good feature instead of a time limit clock ticking down is the introduction of a bubble. If you are taking a long time to complete the level, a bubble comes along and chases you. If it catches you it sucks all the power-ups that you have collected.

Another new idea is the arrow you shoot. When you fire a magical whirlwind, an arrow comes out and shows you which way you have to go.

My first impressions of *Magic Pockets* were all bad, because the instruction booklet doesn't explain itself very clearly. But the gameplay, graphics and FX's are up to the usual Bitmap Brothers standard. After all, their last release was the amazing *Gods*!

When I finally sat down with a few friends and figured out how to play the game I must admit I was soon quite addicted to it. Mind you, the game has actually got a lot in common with *Gods*. Amaz-

ingly, the bricks in the background are exactly the same, the sound effects the same, and it even feels a bit the same as *Gods* in the gameplay department. The only real difference is the actual character sprite. Talk about recycling!

And just like in *Gods*, there are special bonuses when you do things in a set order. There is one in the first section of each world, which lets you warp straight to the first section in the next world.

At the end of a section Kid awards himself bonus points for doing lots of different things. For example, there's a bonus for collecting silver stars.

The background graphics are excellently drawn. Each individual bob is animated well and the scrolling is smooth and not jerky. *Magic Pockets* is surprisingly addictive for a platform game and I would recommend it to anyone who enjoys a good game and a good laugh.

#### Ratings:

|              |     |
|--------------|-----|
| Graphics:    | 85% |
| Sound/Music: | 83% |
| Gameplay:    | 81% |
| Overall:     | 82% |

#### Distributed by:

**Mindscape**  
(02) 899 2277  
RRP Amiga \$69.95



The first land - plenty of ups and downs



# CDTV

Good news for CDTV fans - things are finally on the move! This month has seen a flood of new releases from Commodore and third party suppliers, a great sign for the future of the CDTV. Read on for all the latest news!

## CDTV Keyboard Adaptor

Here's a cheap alternative to the CDTV keyboard if you've already got an Amiga 2000. For just \$29.95, you can buy a keyboard adaptor that will let you plug your standard keyboard into the CDTV and run it just like a souped up Amiga. Contact the Hard Disk Cafe for more information on (02) 979 5833.

## Karaoke Disks

Watch out next month for a review of the very first Karaoke disks to arrive in Australia - exclusive to the Hard Disk Cafe.

## CDTV Genlocks and Smartcard

The Commodore CDTV Genlock is now available, and retails for \$399. With the genlock in place you'll soon be able to use your CDTV for video-titling applications, as well as capturing the output from other CDTV programs on video. The 64K Smartcard is now available too - if you've ever wondered what that little slot is for on the front of your CDTV, here's the answer. With the smart card you'll be able to save game positions and high scores, personalise certain programs, and much more. We're still waiting, though, for programs that will make use of it! Stay tuned.

## A Flood of New Games

For a while there, the supply of CDTV games dried up to a trickle. First releases were of average quality, as program-

mers came to terms with the capabilities of the new machine. Times are changing - look at this list of brand new titles.

\* **EYES OF THE EAGLE** - subtitled *Chaos in Andromeda*, this is the first high powered RPG to appear on CDTV. Your task is to travel through space in search of a missing scientist. The game features huge alien landscapes and eight unique CD soundtracks. Watch for it soon.

\* **MUD PUDDLE** is a kid's book on disc. Meet a walking mud-puddle that constantly ambushes a little girl - until she gets the better of it. You can ask your CDTV to read your favourite passages, to explain or pronounce unfamiliar words, and even to identify objects in the accompanying pictures. There's music too, with sound effects, and the text and audio background can run in either Spanish or English - great for learning a second language!

\* **CINDERELLA** is another title in the Discis series. Read the story of Cinderella, her ugly step sisters and her good ol' fairy godmother like never before, with colourful interactive graphics, and a full narrative track too.

\* **A LONG HARD DAY AT THE RANCH** is also in the Discis series. By Audrey Nelson, this story is written in the form of young boy's letter home from a holiday on the Aunt's Ranch. Desperate bandits, runaway cattle and wild adventures fill the story - while the accompanying pictures show the more mundane reality. Designed for ages 5 and upward, all the usual interactive book features are included.

\* **THE TALE OF PETER RABBIT** by Beatrix Potter is also available from Discis. With Potter's original illustrations digitised on disc, follow Peter Rabbit as Mean Mr McGregor chases him around the garden. Find out how he loses his clothes and is helped by friendly sparrows. The kids will love this one.

\* **THE PAPER BAG PRINCESS** was demonstrated at the World of Commodore launch of the CDTV - now it's finally available. A traditional fairy tale with a beautiful princess, a handsome prince and a nasty dragon, if you saw the demonstration, you'll be wanting to get your very own copy!

## Dataflow CDTV Titles now in Stock

Dataflow, Australia's leading CDTV software distributor, has just released a list of all titles currently in stock. They are: *Mind Run II*, *Ultimate Basketball*, *Guinness CDTV Disk of Records*, *Animal in Motion*, *Many Roads to Murder*, *North Polar Expedition*, *Asterix Learns French*, *Mind Run*, *Excalibur*, *Garfield Big*, *Garfield Winter*, *Time Table of the Arts*, *Animated Colouring Book*, *Japan World*, *Raffles*, *Flacon*, *Xenon II*, *Dinosaurs for Hire*, *Prehistorik*, *Chaos in Andromeda*, *Karaoke Hits I and II*.

## More Dataflow Releases for Christmas

Dataflow have just announced the following Christmas releases:

*Lemmings* (with Planetside Demo) \$79.95  
*Super Games Pack* \$79.95  
*Barney Bear Goes Camping* \$79.95  
*Thomas Snowsuit* \$95.95  
*CD Remix* \$79.95  
*Dr Wellman Health Guide* \$149.00

## Amiga 690 for '92 Release

If you've been waiting for the release of the A690 CD unit, then you won't be much longer. The unit has been redesigned, and now features most of the CDTV's internal chips and memory. Originally expected to be not much more than a CD-ROM drive and supporting software, the concept has grown much bigger - but the good news is, the price tag hasn't! We're not allowed to mention the planned retail price, because it's still subject to change. But one thing's for sure - if Commodore manage to bring it out at the price suggested to me, there will be a mad scramble for stocks. And that's good for the future of the CDTV.

## CDTV Feedback

Don't forget our CDTV Feedback section. If you've got questions, comments, or even complaints about the CDTV, why not drop us a line? Write to Phil Campbell, PO Box 23, Maclean NSW 2463.



**Fighting has never been so painless! PHIL CAMPBELL checks out a game that will let you get rid of all that aggression without the risk of bruises and black eyes**

Oy! Cop this! BIFF! SOCK! OOOOF! A right to the head. A left jab to the solar-plexus. And Larry Lunchbucket, ranked number 50 on the WBC ladder, hits the canvas. I've just chalked up my first victory in *4D Sports Boxing*, and it didn't hurt a bit.

This is an unusual game - particularly on the graphical side. Let's take a quick history lesson.

It all started with *Asteroids* - a game featuring a tiny triangular ship floating around in an asteroid belt, all done with little straight lines on the screen that the techno-types call "vectors."

Then came *Battle Zone*, a tank simulation with 3-D views of a wire-frame vector world. These vectors were good stuff - all you needed were the co-ordinates of the end points, some solid computing power to calculate where they should move to, and some rudimentary drawing routines to plot them on the screen.

Time marched on. And year by year we've seen more and more complex games adopting the vector approach. Surfaces have

been filled in giving a more solid look, colour is splashed everywhere, and the vector calculations have become faster and faster.

We've seen racing games like *Indi 500*, we've seen space trading games like *Elite*; classy little space-sims like *Virus*, innumerable flight simulators - including the classy *Wings*, still one of my favourite games - and other titles too numerous to count.

In the past, games like this have had one limitation. The vector technique produces solid, angular looking objects, ideal for depicting mechanical gadgets like spaceships and planes, but not so good for live characters. The human body, after all, is made up of soft flowing curves.

"Who cares?" said the programmers at Mindscape, and promptly designed a bunch of mean looking vectorised boxers. They're angular, they're gangly, they're sharp, they're robotic - but they fight very, very well. And, in short, the overall effect works well.

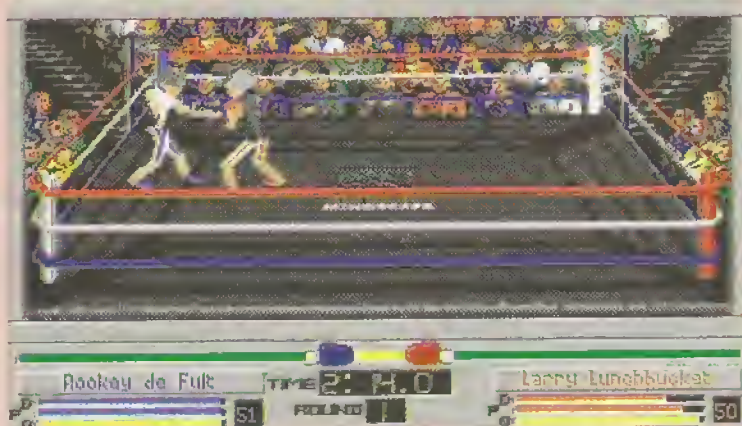
As you will appreciate, this method of constructing the boxers means the game has

a whole different feel from previous boxing simulations. In other boxing games, the characters are sprites, with a set of pre-drawn movements. Here, they're a set of objects with pre-defined linkages. So press the joystick for a jab, and it's a sort of a knee-bone connected to the thigh-bone, thigh-bone connected to the hip-bone effect - the body parts interact and move in quite a realistic way. Realistic, that is, if you can overlook the fact that it's all done with triangles and circles.

Though the game provides a set of simulated opponents of various abilities, it's up to you to create a camp of ten of your own boxers. You dictate how tall, how heavy and how strong they are. Next you have to train them, to build them up into lean, powerful fighting...er, machines. This is a fairly easy process - just fine tune the settings on the control panel in the gym.

Then it's off to the stadium for your first fight. It's easy - Larry Lunchbucket is slow and overweight. The statistics show that he only throws 42 punches compared to my 164, and it's a knock out one minute into the second round. Future bouts are not quite so easy!

There are multiple views available, with movable cameras, and the option to look at the action through either boxers eye's. Check out the screen shots and you'll see the dramatic difference this makes to your perspective on the game. Sound effects in the game are reasonable, though half baked. The referee, for example, says "Ladeez and gennulmun" in a nicely digitised voice - and then remains silent while the rest of his announcement appears on the screen. Crowd noises are digitised too, though the sample length is a little short, leading to a fairly apparent cyclic effect. Still, not a bad effort - in fact, *4D Sports Boxing* is one of the more enjoyable boxing sims I've played. □



The view from Camera 2. That's me on the left

#### Ratings:

|           |     |
|-----------|-----|
| Graphics: | 76% |
| Sound:    | 57% |
| Gameplay: | 81% |
| Overall:  | 78% |

Distributed by:

**Mindscape**

(02) 899 2277

RRP \$69.95

Available for:

Amiga

PC Compatibles





**You asked for it, Role Playing Freaks! And here it is. David Sanna's complete rundown on the new Interplay version of Lord of the Rings! Take it away, Dave.**

Interplay productions presents the first role-playing computer game encompassing the epic fantasy world of J.R.R. Tolkien's middle earth. Players journey through a world inhabited by 'Hobbits' (three foot high, furry creatures who love to smoke pipes and eat and make tea!) Elves, Dwarves, wizards, and Orcs, ghosts, trolls, and wolves, all the while protecting the one true ring from falling into the grasp of the evil Lord Sauron and his Dark Riders.

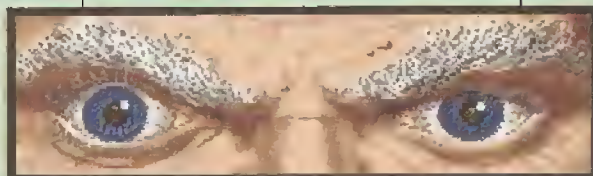
WOW! sounds engulfing doesn't it? Well, believe me it is. The whole game is mostly based upon the book. So if you are not familiar with Tolkien's books you must thoroughly read the 90 page manual to get an idea of what you are supposed to do and when.

In *The Lord of the Rings, Volume 1*, there are two types of characters. A player character (PC for short) is a character who belongs to the fellowship, the

group of characters participating in the Quest of the Ring.

A non-player-character (NPC for short) is a character who does not belong to the fellowship but whom it is possible to interact with either through combat, trade or speech and occasionally all three.

Combat in *Lord of the Rings* is determined on screen. When the hostile en-



emy appears, the characters have two options: attack or run away. I advise attacking whenever possible, even the friendlies, because it builds up your combat skill. I have some helpful hints for you that you might need.

1) Pay special attention to your con-

versations with Non Player Characters. Even a seemingly meaningless statement may eventually have some importance. Take copious notes.

2) Make certain your party always has at least one torch. Illumination in underground areas is critical!

3) The shire is a place to practice your skills. Exploring it thoroughly before you leave is beneficial. However if you receive a hint that black riders are nearby, get away from there as fast as your little hobbit legs can carry you!

4) Keep hobbits out of combat if at all possible, at least until they have armour or magic spells or weapons. However hobbits are useful and important to the overall course of the game. Don't drop hobbits out of the game just because the can't fight as well as the rest of your Player Characters.

5) Don't necessarily avoid areas just because someone tells you that they are dangerous. They could be very profitable!

6) *The Lord of the Rings Volume One* has a number of plot twists that cannot be avoided. Don't be too anxious to restart the game if something disastrous happens.

At first glance *Lord of the Rings* looks complex and slow. It is. You also need 1 meg of

expanded RAM and even then the game is still slow.

Overall, the graphics display is good. Nothing close to *Psygnosis*, but still very nice. There's not much in the sound department though - a little disappointing. In terms of playability, the game is annoyingly slow and lacks that cutting edge.

But even so, I enjoyed the game a lot and would recommend it to any budding role-player. □

#### Ratings:

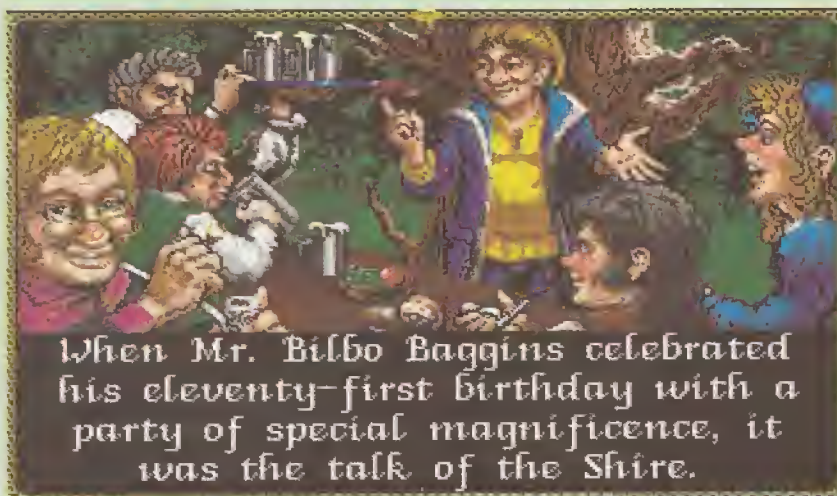
|           |     |
|-----------|-----|
| Graphics: | 78% |
| Sound:    | 48% |
| Gameplay: | 74% |
| Overall:  | 70% |

Distributed by:

**Electronic Arts**

(075) 911 388

RRP: Amiga \$59.95



When Mr. Bilbo Baggins celebrated his eleventy-first birthday with a party of special magnificence, it was the talk of the Shire.

# CHINA

## HEART OF

**Phil Campbell gets stuck into some genuine oriental adventuring as he takes the part of "Lucky" Jake Masters in *Heart of China*.**

A village in Chengdu province, the heart of China. Nurse Kate Lomax dresses a small boy's wound. A noise from the nearby bushes alerts her, but too late - Kate is caught in a vice-like grip, her screams stifled by a roughened hand across her mouth. "Heal your last patient, Nurse Kate. You'll make a fine addition to Li Deng's collection," growls a voice from behind her. And with that, the intruder throws her easily over his shoulder and lumbers away.

We're playing *Heart of China*, a superb game set in the splendour of 1930 Asia. It's an adventure Indiana Jones would be proud of - plenty of opportunities for gallantry and heroism, plenty of bad guys, plenty of evil henchmen. And a beautiful woman in distress.

You're Jake Masters, a down and out pilot haunting the seedy dives of Hong Kong. And Kate's millionaire father E.A. Lomax has chosen you to rescue his daughter from the clutches of the wicked Warlord Li Deng. Lomax didn't ask you to go - he ordered.

And to press the point, as the game begins you'll find yourself standing by

Hong Kong Harbour watching the debris of your Sampan bobbing gently in the water. Lomax has blown it up as a gentle hint - rescue Kate. Or else.

I turn back to the Rickshaw that brought me here. "Where you want go?" asks the Coolie in broken English. Four possible destinations appear on the screen - we set off for the town. I'll need help, so Lomax suggested I contact Zhao Chi, a freelance Ninja who owes him a favour.

Narrow streets, figures shuffling back and forth, flags and banners fluttering in the breeze - this is the seedy side of Hong Kong.

Two doors are visible - I enter Ho's Bar by clicking on the nearest with my mouse. Inside, there's a cluster of people. They look at me uneasily as I approach Ho. We talk, and eventually I'm introduced to Chi.

At every point in the conversation, I choose from a range of options on the screen. Pick the wrong responses, and Chi will beat me to a pulp. But for now, at least, he's going to join me. Moments later we're on board my plane, the Yan-

kee Eagle. She's a 1926 Ford Tri-motor, capable of 300 miles per hour. We set our course for Chengdu, and head for the sky. The adventure is just beginning.

The graphics are a superb combination of hand-painted backgrounds with digitised animations of live actors. The cast list takes up the first three pages of the manual, and the effect is absolutely stunning. Granted, most of the live-actor animations are brief, but they breathe life into the story as it unfolds on the screen.

The sound is superb too. Dramatic oriental music sets the tone nicely. Mind you, the interactive movie experience won't really be with us until we've got "talkies" - for now you'll have to put up with the dialogue appearing on the screen.

Finally, the gameplay is smooth and logical. Everything is mouse or joystick controlled, so you won't have to type commands - simply point to objects you wish to pick up or use, and they'll be added to your inventory.

Point and click on characters on the screen and you'll automatically strike up a conversation. Easy. But challenging too, so you'll need to keep your wits about you.

*Heart of China* is a superbly crafted game. Atmosphere, mood, and a bit of good ol' fashioned adventure make it a worthwhile addition to any game collection. □

Distributed by:

**Ozisoft**

(02) 313 6444

RRP: \$69.95

Available for: Amiga & PC





# TALK TO YOUR TELEVISION

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Phone Commodore (02) 428 7777 for a dealer near you



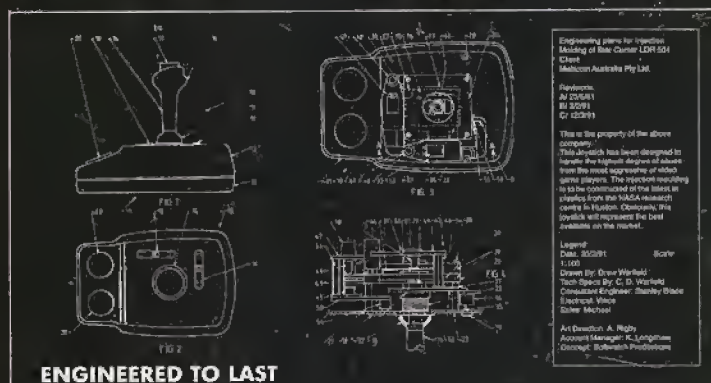
**CDTV™**  
INTERACTIVE  
MULTIMEDIA

from Commodore

A vintage NEC MultiSync JFG computer monitor is the central focus, displaying the 'Star Joysticks' logo on its screen. The monitor is set against a dark, industrial background featuring a large, jagged pile of crushed metal and a bright flame on the left. In the foreground, four arcade-style joysticks with various colored buttons (red, blue, yellow) are arranged on a dark surface. The overall scene suggests a rugged, high-performance environment. In the bottom right corner, there is a green triangle logo with a yellow kangaroo silhouette and the text 'AUSTRALIAN MADE' below it.



STAR  
JOYSTICKS



Manufactured in Australia by:  
**MULTICOIN Australia Pty. Ltd.**

**17 Wrights Place, Labrador,  
Gold Coast, Australia, 4125.  
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